

2024-1097

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

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GOOGLE LLC,  
*Plaintiff-Appellee*

v.

SONOS, INC.,  
*Defendant-Appellant*

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Appeal from the United States District Court for the Northern District of California  
in nos. 3:20-cv-06754-WHA & 3:21-cv-07559-WHA, Judge William H. Alsup

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**RESPONSE BRIEF OF APPELLEE GOOGLE LLC**

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## REPRESENTATIVE PATENT CLAIMS

(disputed limitations *italicized*)

### U.S. Patent No. 9,967,615 claim 13:

13[pre]. A tangible, non-transitory computer readable storage medium including instructions for execution by a processor, the instructions, when executed, cause a control device to implement a method comprising:

- [13.1] causing a graphical interface to display a control interface including one or more transport controls to control playback by the control device;
- [13.2] after connecting to a local area network via a network interface, identifying playback devices connected to the local area network;
- [13.3] causing the graphical interface to display a selectable option for transferring playback from the control device;
- [13.4] detecting a set of inputs to transfer playback from the control device to a particular playback device, wherein the set of inputs comprises: (i) a selection of the selectable option for transferring playback from the control device and (ii) a *selection of the particular playback device from the identified playback devices connected to the local area network*;
- [13.5] after detecting the set of inputs to transfer playback from the control device to the particular playback device, causing playback to be transferred from the control device to the particular playback device, wherein transferring playback from the control device to the particular playback device comprises:
  - (a) causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device, wherein adding the multimedia content to the local playback queue comprises the one or more first cloud servers adding, to the local playback queue, one or more resource locators corresponding to respective locations of the multimedia content at one or more second cloud servers of a streaming content service;
  - (b) causing playback at the control device to be stopped; and
  - (c) modifying the one or more transport controls of the control interface to control playback by the playback device; and
- [13.6] causing the particular playback device to play back the multimedia content, wherein the particular playback device playing back the multimedia content comprises the particular playback device retrieving the multimedia content from one or more second cloud servers of a streaming content service and playing back the retrieved multimedia content.

**U.S. Patent No. 10,779,033 claim 1:**

1[pre]. A computing device comprising:

[1.1] at least one processor;

[1.2] a non-transitory computer-readable medium; and

[1.3] program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

[1.4] operating in a first mode in which the computing device is configured for playback of a *remote playback queue provided by a cloud-based computing system associated with a cloud-based media service*;

[1.5] while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;

[1.6] while displaying the representation of the one or more playback devices, receiving user input indicating a *selection of at least one given playback device from the one or more playback devices*;

[1.7] based on receiving the user input,

[1.7(a)] transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device,

[1.7(b)] wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;

[1.8] detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device; and

[1.9] after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.

**U.S. Patent No. 10,469,966 claim 1:**

1[pre]. A computing device comprising:

[1.1] one or more processors;

[1.2] a non-transitory computer-readable medium; and

[1.3] program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the computing device to perform functions comprising:

[1.4] while serving as a controller for a networked media playback system comprising a first zone player and at least two other zone players, wherein the first zone player is operating in a standalone mode in which the first zone player is configured to play back media individually:

[1.5] receiving a first request to create a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked;

[1.6] based on the first request, i) causing creation of the first zone scene, ii) causing an indication of the first zone scene to be transmitted to the first zone player, and iii) causing storage of the first zone scene;

[1.7] receiving a second request to create a *second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the third zone player is different than the second zone player*;

[1.8] based on the second request, i) causing creation of the second zone scene, ii) causing an indication of the second zone scene to be transmitted to the first zone player, and iii) causing storage of the second zone scene;

[1.9] displaying a representation of the first zone scene and a representation of the second zone scene; and

[1.10] while displaying the representation of the first zone scene and the representation of the second zone scene, receiving a third request to invoke the first zone scene; and

[1.11] based on the third request, causing the first zone player to transition from operating in the standalone mode to operating in accordance with the first predefined grouping of zone players such that the first zone player is configured to coordinate with at least the second zone player to output media in synchrony with output of media by at least the second zone player.

**U.S. Patent No. 10,848,885 claim 1:**

1[pre]. A first zone player comprising:

[1.1] a network interface that is configured to communicatively couple the first zone player to at least one data network;

[1.2] one or more processors;

[1.3] a non-transitory computer-readable medium; and

[1.4] program instructions stored on the non-transitory computer-readable medium that, when executed by the one or more processors, cause the first zone player to perform functions comprising:

[1.5] while operating in a standalone mode in which the first zone player is configured to play back media individually in a networked media playback system comprising the first zone player and at least two other zone players:

[1.6] (i) receiving, from a network device over a data network, a first indication that the first zone player has been added to a first zone scene comprising a first predefined grouping of zone players including at least the first zone player and a second zone player that are to be configured for synchronous playback of media when the first zone scene is invoked; and

[1.7] (ii) receiving, from the network device over the data network, a second indication that the first zone player has been added to a *second zone scene comprising a second predefined grouping of zone players including at least the first zone player and a third zone player that are to be configured for synchronous playback of media when the second zone scene is invoked, wherein the second zone player is different than the third zone player*;

[1.8] after receiving the first and second indications, continuing to operate in the standalone mode until a given one of the first and second zone scenes has been selected for invocation;

[1.9] after the given one of the first and second zone scenes has been selected for invocation, receiving, from the network device over the data network, an instruction to operate in accordance with a given one of the first and second zone scenes respectively comprising a given one of the first and second predefined groupings of zone players; and

[1.10] based on the instruction, transitioning from operating in the standalone mode to operating in accordance with the given one of the first and second predefined groupings of zone players such that the first zone player is configured to coordinate with at least one other zone player in the given one of the first and second predefined groupings of zone players over a data network in order to output media in synchrony with output of media by the at least one other zone player in the given one of the first and second predefined groupings of zone players.

**CERTIFICATE OF INTEREST**

I certify that the information below is complete to the best of my knowledge.

Date: May 24, 2024

Signature: /s/Dan L. Bagatell

Name: Dan L. Bagatell

<b>1. Represented Entity</b>	<b>2. Real Party in Interest</b>	<b>3. Parent Corporations and 10% Stockholders</b>
Google LLC	none	XXVI Holdings Inc.; Alphabet Inc.

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**5. Related Cases**

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**6. Organizational Victims and Bankruptcy Cases**

none

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AIA	Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011)
Appx ____	appendix page ____
Google	declaratory judgment plaintiff–appellee Google LLC
IPR	inter partes review
PTAB	Patent Trial and Appeal Board
PTO	United States Patent and Trademark Office
Sonos	declaratory judgment defendant–appellant Sonos, Inc.
UI	user interface
YTR	Google’s prior-art YouTube Remote product
(x:y-z)	column x, lines y-z
’033 patent	asserted U.S. Patent No. 10,779,033
’615 patent	asserted U.S. Patent No. 9,967,615
’885 patent	asserted U.S. Patent No. 10,848,885
’966 patent	asserted U.S. Patent No. 10,469,966
’998 patent	Google’s prior-art U.S. Patent No. 9,490,998

Unless otherwise indicated, “§” references refer to U.S.C. Title 35

### STATEMENT OF RELATED CASES

These civil actions have been before this Court on two previous occasions:

- In *In re Google LLC*, No. 2021-170 (Fed. Cir.), a motions panel of Judges Lourie, Bryson, and Taranto granted a writ of mandamus to transfer the action that Sonos filed in the Western District of Texas to the Northern District of California.
- In *Sonos, Inc. v. Google LLC*, Nos. 2022-134 & 2022-144 (Fed. Cir.), a motions panel of Judges Dyk, Reyna, and Chen denied the parties' cross-petitions for leave to file interlocutory appeals regarding the sufficiency of Sonos's pleadings under Federal Rules of Civil Procedure 8(a) and 12(b)(6).

In addition, No. 2023-2040 (Fed. Cir.) is Sonos's appeal from an inter partes review in which Google successfully challenged the patentability of claims of the '615 patent at issue here.

Google's counsel are not aware of any other case that may directly affect or be directly affected by this Court's decision in this appeal.

## INTRODUCTION

Brimming with vitriol, Sonos contends (at 1) that the district court “rewrote patent law and reconstituted the judicial role.” But it was Sonos that abused the patent laws and the judicial process. The court faithfully applied the Patent Act, the Federal Rules of Civil Procedure, and settled precedent in holding Sonos’s patent claims unenforceable and invalid over prior Google art.

Sonos complains (at 1, citing Appx21412) that the “district court ha[d] strong views about ‘the way the patent system should work.’” But those views were orthodox. For over 135 years U.S. courts have consistently held that that which infringes if later anticipates if earlier. And for over 100 years U.S. courts have held that patents are unenforceable for prosecution laches when the plaintiff unreasonably and inexcusably delayed claiming its invention and the defendant suffered prejudice from that delay. As a matter of black-letter law, Sonos was *not* entitled to add new matter to its specification after thirteen years of prosecution to support new claims covering an “overlapping zone scenes” feature that Google had included in products marketed four years earlier.

With settled law against it, Sonos tries to muddy the facts. But the record was clear. Although Sonos *internally contemplated* overlapping zone scenes in late 2005, it neither *disclosed* nor *claimed* that feature until 2019, thirteen years after filing its provisional application, twelve years after filing its original utility application, and

four years after Google offered accused products with that feature. Sonos's belated claims were therefore invalid for anticipation as a matter of law, and the district court did not abuse its discretion in finding them unenforceable for prosecution laches. Sonos protests that it was denied a fair opportunity to tell its side of the story, but it was represented by the same firm that prosecuted the patents and it submitted over 100 pages of briefing and 1,000 pages of exhibits on these issues. Sonos was doomed by bad facts, not flawed procedure.

Sonos also complains about the summary judgment that claims of the two transferred-playback patents were invalid for obviousness. But even if those issues remain live, prior Google art clearly disclosed the two limitations Sonos now disputes.

The judgment should be affirmed in full.

#### **STATEMENT OF ISSUES**

1. Did the district court correctly hold that Sonos's '966 and '885 claims were anticipated by Google's accused products, which were released in 2015, because Sonos added new matter in 2019, making 2019 Sonos's effective filing date?

2. Did the court act within its discretion in holding the '966 and '885 patents unenforceable for prosecution laches?

3. Did the court correctly grant summary judgment that Sonos's '615 and '033 claims were invalid over prior Google art?



## STATEMENT OF THE CASE

This case involved six patents. Sonos withdrew one and dropped another after the then-presiding judge found claims indefinite. *See* Appx76; Appx108. Two pairs of patents remained: the '966 and '885 patents involving overlapping zone scenes, and the '615 and '033 patents involving transferred playback. Before trial, the district court granted summary judgment to Google on the transferred-playback claims. Appx1-37. After trial, the court held the overlapping-zone-scenes claims invalid for anticipation and unenforceable for prosecution laches. Appx51-105.

### **I. The '966 and '885 overlapping-zone-scenes patents**

Sonos's '966 and '885 patents issued to Robert Lambourne in 2019 and 2020 and claim priority to a September 12, 2006, provisional application and a September 11, 2007, non-provisional application. Appx346-85; Appx2051-100. Both patents address managing “zone scenes” in media playback systems having “zone players” serving different “zones.” A “zone scene” is a saved grouping of zone players according to a common theme such as “Morning” or “Downstairs.” Appx20508.

Sonos did not invent zone scenes or synchronized zone playing: the PTO repeatedly rejected broader zone-scene claims over a 2004 Yamaha DME manual, Appx5020-23; *see, e.g.*, Appx31524-30. The key claimed feature was instead *overlapping* zone scenes in which a zone player belongs to multiple zone scenes, e.g., “Morning” *and* “Downstairs.” '966 claim 1 is directed to a controller and recites

causing storage of one zone scene including first and second zone players and another zone scene including first and third zone players. Appx383 (11:35-12:14). '885 claim 1 is directed to a zone player and requires transitioning from a stand-alone mode to operating as part of a first zone scene and operating as part of a second, overlapping zone scene. Appx2094 (11:37-12:22).

Sonos contended that devices with the Google Home app infringed the '966 patent and that Google smart-speakers and media players infringed the '885 patent. Because the district court's rulings mooted infringement, the following discussion concentrates on validity and enforceability.

**A. Sonos's failure to disclose and claim overlapping zone scenes until 2019**

Although Sonos internally contemplated overlapping zone scenes in 2005, it neither disclosed nor claimed them until 2019—years after Google disclosed that feature to Sonos and began selling products including it.

**1. The ad-hoc zone grouping of Sonos's prior-art 2005 system and Sonos user forum comments requesting overlapping zone scenes**

Sonos shipped its first multi-room audio system in early 2005. That system included zone players that could be wired to speakers and wirelessly connected to a network-based audio source and a hand-held controller for managing the players and playback. Appx54-55; Appx20274-76; Appx20411-12. The 2005 system enabled users to group zone players for synchronized playback, but its grouping capabilities

were rudimentary. Zone players could be dynamically grouped only on the fly and on an ad-hoc basis. To form a zone group, a user had to link one zone player to others one-by-one; and to destroy that zone group, the user had to drop zone players one-by-one. The 2005 system did not allow users to customize and save groups of zone players and implement them on demand. Users could create multiple zone groups for simultaneous play in different areas, but those groups could not overlap. Appx55-56; Appx6391-94; Appx20268-69, Appx20279, Appx20292; Appx20323-29; Appx20421-25. The system also had a preprogrammed Party Mode in which all zone players were joined to play the same audio, but that mode overrode existing ad-hoc groups. Appx56-57; Appx6392; Appx20324-28.

Sonos's audiophile customers identified these drawbacks in Sonos's online user forums. In February 2005, one, "theboyg," complained that manually linking and unlinking was cumbersome and called for customized, saved groups of zone players, e.g., "Downstairs," that could be invoked on demand. Another, "JeffT," also requested saved zone groupings, including the ability to save customized, *overlapping* groups such as a "Summer" group including deck speakers and a "Winter" group excluding them. *See* Appx42-43.

## **2. Lambourne's December 2005 zone-scenes UI documents**

Sonos's user interface (UI) designer, Lambourne, took those suggestions to heart and sketched out plans to allow users to save customized groupings and invoke

them on demand. One fall-2005 sketch contemplated allowing one room to be part of two groupings. *See* Appx58-59; Appx10955.

In December 2005, Lambourne drafted an internal specification of the functional design for a “Zone Scenes”/“Zone Configurations” UI. Appx8148-68. That document described customizing, saving, and invoking zone scenes. Appx8149-54. It did not expressly describe *overlapping* zone scenes, but it continued to include a preprogrammed Party Mode with all zone players in addition to user-defined zone scenes with fewer than all players. Sonos now denies that Party Mode was a zone scene, *see* Appx90-91, but Lambourne’s zone-scenes specification depicted Party Mode as a “zone scene,” Appx8153, and his contemporaneous “UI Specification: Alarm Clock” stated that the “‘Party Mode’ that currently ships with the product is one example of a Zone Scene,” Appx8146.

Although the UI specification contemplated *invoking* zone scenes using Sonos’s handheld controller, Appx8152-54, it was “not expected that the Zone Scenes should be *set up* using the Handheld Controller”—only with desktop controllers, Appx8156 (emphasis added). The document included a separate Section 4 covering “Alternative Linking Methods” on the handheld controller. Appx8164-65. In particular, it described an alternative method called “Multiple Select in Link and Drop Zone panels” that was “an adaptation of the Link and Drop Zone feature” that Sonos’s 2005 system used for ad-hoc zone grouping. The document explained that

“the current Link and Drop Zones features” for ad-hoc groups “allow the user to link and drop Zones one at a time. This feature would allow the user to link and drop multiple zones in one screen.” Appx8164. It proposed that the zone-listing displayed for such enhanced “Zone Linking” on the handheld controller include “ALL the zones in the system, including the Zones that are already grouped”:

#### 4 Alternative Linking Methods

##### 4.1 Multiple Select in Link and Drop Zone panels

This feature is an adaptation of the Link and Drop Zone feature.

Currently, as discussed in the introduction of this document, the current Link and Drop Zones features allow the user to link and drop Zones one at a time. This feature would allow the user to link and drop multiple zones in one screen.

Using this methodology, the action Link and Drop zones can be achieved on one screen. In addition, because of the flexibility of this UI, Music can easily be moved from one zone to another.



- The list of zones in the screen above includes ALL the zones in the system, including the Zones that are already grouped.

Appx8164. This Section 4 discussion addressed only enhanced *ad-hoc zone linking* and was separate and distinct from Lambourne’s proposal in Sections 1–3 of persistent *zone scenes*.

### **3. Sonos’s 2006 and 2007 applications and their lack of overlapping zone scenes**

Sonos filed its provisional application in September 2006. Appx8239-325. The provisional briefly mentioned both the ad-hoc linking approach of Sonos’s prior-art 2005 design and a new method of invoking a predefined zone scene. Appx8251-52. The provisional “annexed” two UI specifications, one for zone scenes and one for an alarm clock, but both were *alterations* of Lambourne’s December 2005 UI documents. The appendices omitted the statements that the “‘Party Mode’ that currently ships with the product is one example of a Zone Scene” and that “[t]he Zone feature [that] allows the user to arrange the zones into groups using one single command” was “similar to the current Party Mode setting that is available.” *Id.* Without any indication that Party Mode was a zone scene, the provisional did not disclose overlapping zone scenes, even implicitly.

Sonos’s 2007 non-provisional application, which was accompanied by a non-publication request, *see* Appx66, also did not disclose overlapping zone scenes. Appx8330-65. In connection with Figures 3A, 3B, 5A, 5B, and 6, it described creating *individual* zone scenes, Appx8345-49, Appx8359-60, Appx8362-63, Appx8365,

but not creating or invoking *overlapping* zone scenes. The appendices were carried over from the provisional and likewise did not disclose overlapping zone scenes.

Sonos's 2013, 2014, and 2016 continuation applications also did not mention overlapping zone scenes. As discussed below, that concept did not surface until 2019, years after Google and others had introduced that feature.

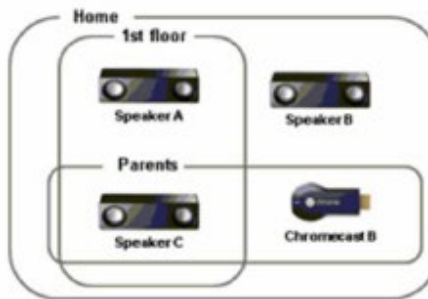
#### **4. Google's disclosure of its overlapping-zone feature to Sonos**

Meanwhile, the home-audio market advanced rapidly. By the early 2010s, smartphones were common and music-streaming was popular. Google had launched a digital music service, Google Play Music, and was developing ways of “casting” audio and video from smartphones and tablets to TVs and speakers. Sonos was a leader in wireless multiroom audio and was developing wireless speakers. The companies saw an opportunity to collaborate. At a 2014 meeting, Google discussed its plans for streaming using Google Cast for Audio software. Google specifically disclosed a “Cast Multi-Zone feature” including saved, overlapping multi-zone speaker groups that could be invoked on demand:



## Multi Zone Groups - C4A Device<->Group relationship

- Each C4A device can be a member of several groups
- Chromecasts shall be supported as group members
- Up to ~10 devices/speakers in a single group

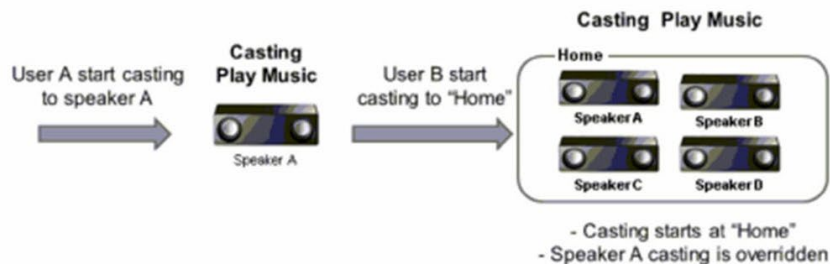


Google Confidential and Proprietary



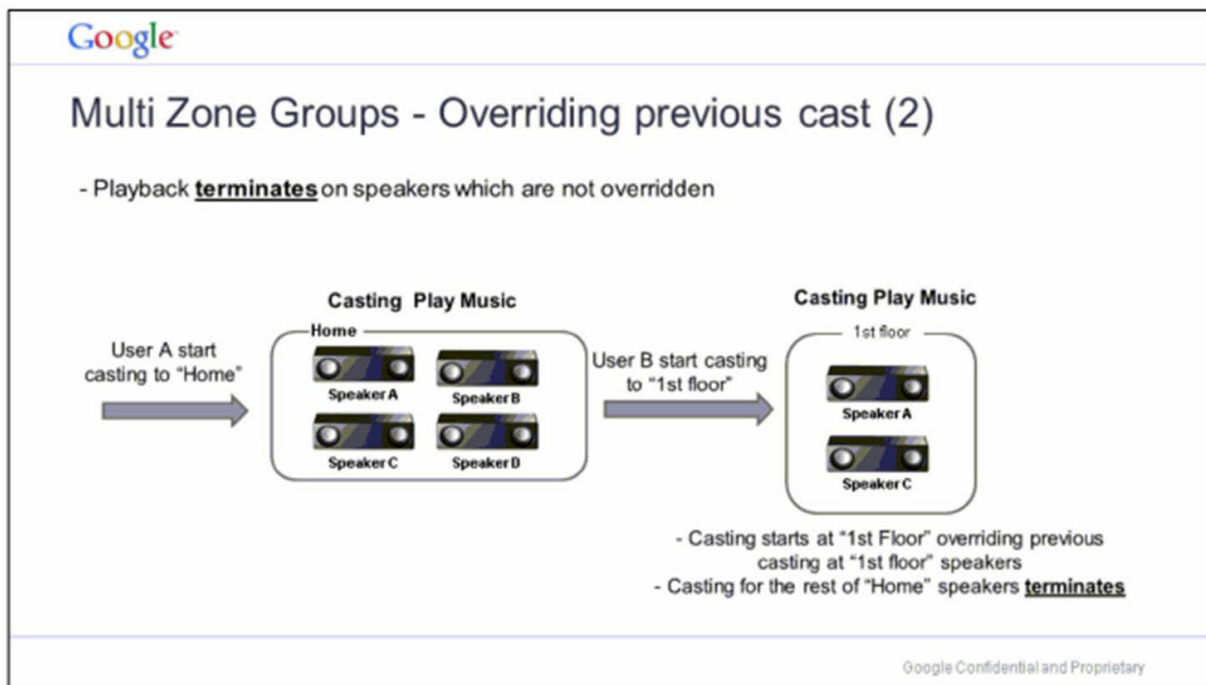
## Multi Zone Groups - Overriding previous cast

- For every speaker the last request overrides previous casting



Google Confidential and Proprietary





See Appx68-71; Appx34449, Appx34455-56; Appx11054-60.

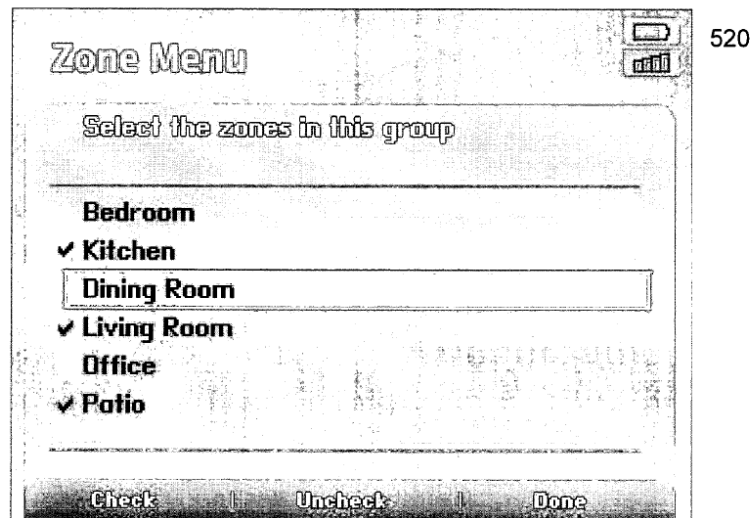
The Cast for Audio collaboration did not materialize, and Sonos and Google went separate ways. Google eventually entered the smart-speaker business, offering products with a wealth of powerful features including virtual-assistant and search capabilities at affordable prices. Among the many features Google's products offer is the ability to create and use overlapping speaker groups.

### 5. Sonos's addition of new matter and new claims to overlapping zone scenes in 2019

By the late 2010s, lower-priced products with smart-speaker features were entering the market. In response, Sonos sought to enhance its patent portfolio . In April 2019, it amended claims in its then-pending continuation application to include—for the first time—limitations requiring overlapping zone scenes.

Appx27696-97. The examiner initially rejected those claims as obvious over Yamaha DME. *See* Appx10984-85; Appx23821-26. In August 2019, Sonos simultaneously amended its claims to cover overlapping zone scenes and amended its specification and figures to add new matter supporting those claims.

Existing Figure 5B illustrated zone-selection like this:



**FIG. 5B**

Sonos's amendment changed the specification to say that zones selected for a new group could include zones already grouped:

FIG. 5B shows another user interface 520 to allow a user to form a scene. The user interface that may be displayed on a controller or a computing device, lists available zones in a system. The list of zones in the user interface 520 includes ALL the zones in the system, including the zones that are already grouped.

Appx23808. This statement seemingly supported the new limitation reciting overlapping zone scenes because the same zone could belong to multiple scenes.

Sonos told the PTO that this amendment contained no new matter because the new material came from Appendix A to the 2006 provisional application, which Sonos had incorporated by reference. Appx23821. Sonos failed to mention that nothing in the 2006 provisional, including Appendix A, disclosed overlapping zone scenes. Nor did Sonos mention the significant alterations it made when inserting the all-zones language. As discussed above, the all-zones sentence in provisional Appendix A appeared in Section 4, which described an enhanced version of *ad-hoc* linking and dropping of zones, not the persistent-zone-scenes concept described in earlier sections of Appendix A. Moreover, the all-zones sentence in provisional Appendix A referred to diagrams that depicted dynamic zone linking and dropping *in an ad-hoc group*:

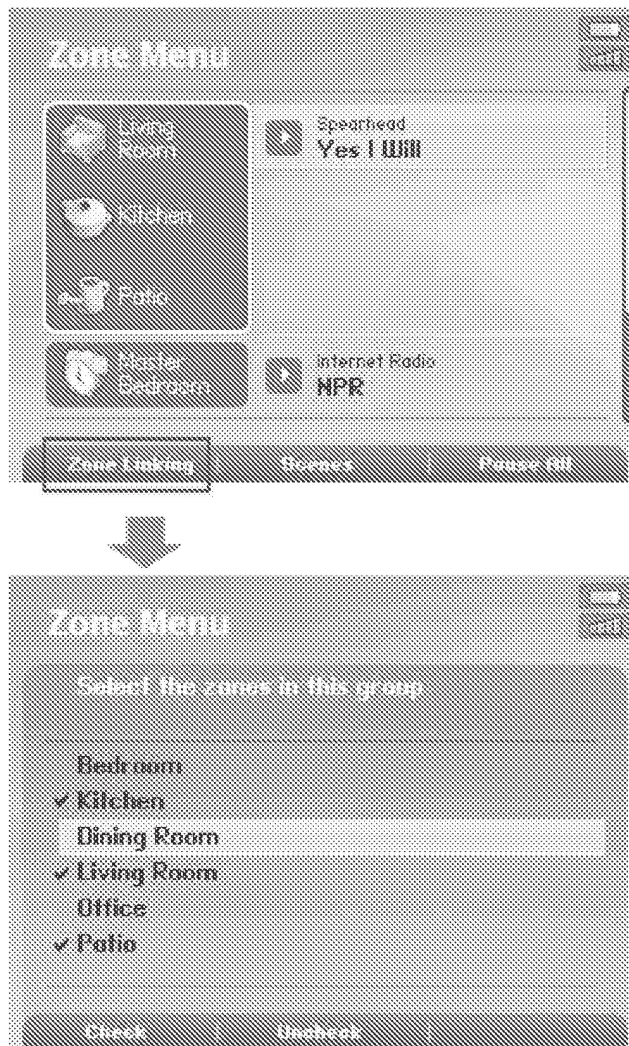
## 4 Alternative Linking Methods

### 4.1 Multiple Select in Link and Drop Zone panels

This feature is an adaptation of the Link and Drop Zone feature.

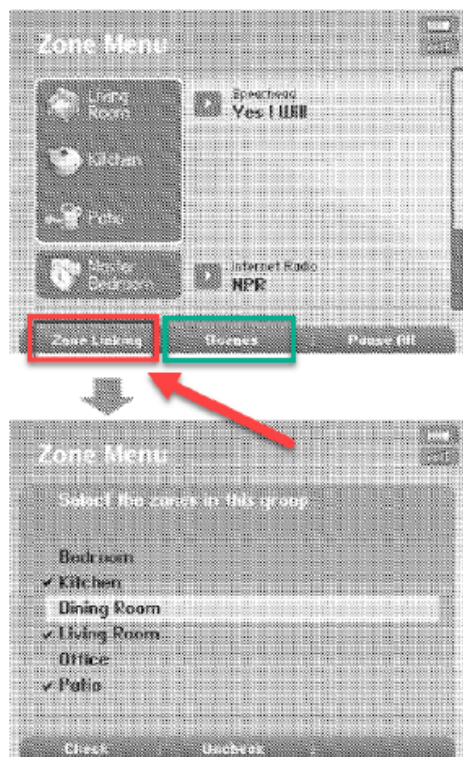
Currently, as discussed in the introduction of this document, the current Link and Drop Zones features allow the user to link and drop Zones one at a time. This feature would allow the user link and drop multiple zones in one screen.

Using this methodology, the action Link and Drop zones can be achieved on one screen. In addition, because of the flexibility of this UI, Music can easily be moved from one zone to another.

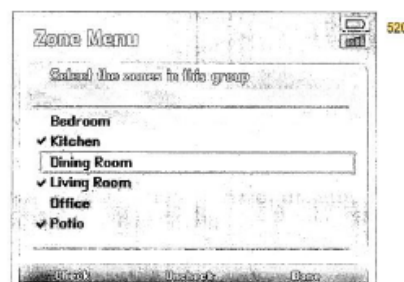


- The list of zones in the screen above includes ALL the zones in the system, including the Zones that are already grouped.

Appx8275. Without acknowledging it, Sonos's amendment altered the all-zones sentence to refer to the cropped diagram in Figure 5B of the application, which did not make clear that the depicted menu was for ad-hoc *zone linking* rather than creation of persistent *zone scenes*:



**Provisional application (annotated)**



**FIG. 5B**

**Patent Figure in Amended Specification**

Appx23808.

Oblivious to that context shift, and overwhelmed because Sonos had submitted 70,000 pages of largely superfluous materials while requesting prioritized “Track One” examination, *see* Appx73-74, the examiner allowed the amendment and eventually allowed the '966 and '885 patents. Sonos then sued Google on those

patents in the Western District of Texas even though both parties were based in California.

**B. The district court's rulings**

**1. The summary-judgment rulings**

After the case was transferred to the Northern District of California, the district court directed parties to engage in a “showdown” of summary-judgment motions on two claims, one selected by each side. Appx485-86. Sonos moved for summary judgment of infringement of claim 1 of the '885 patent. Appx4545-73. Google's opposition disputed infringement and raised invalidity defenses. Appx4890-921. One defense was that the claim lacked written-description support because Sonos “inappropriately added new matter ... during the claim amendment process.” Appx4913-14. Google argued that the specification did not disclose “that a zone player may be added to two zone scenes at the same time,” *i.e.*, overlapping zone scenes. Appx4915-17. In reply, Sonos argued, among other things, that the specification disclosed overlapping zone scenes by referring to Figure 5B and stating that during zone-scene setup users were presented with “ALL the zones in the system, including the zones that are already grouped.” Appx5230-32 (citing Appx2093 ('885(10:12-19))).

The court granted summary judgment of infringement. Appx5403-19. In rejecting Google's written-description defense, it held that specification column 10's

statement that Figure 5B's zone-selection menu "includes ALL the zones in the system, *including the zones that are already grouped*" "adequately convey[ed] that a zone player can be added to multiple zone scenes." Appx5416-17 (also citing column 2's statement that "various scenes may be saved in any of the members of the group").

After that ruling, Google developed a design-around for the '885 claims. It also maintained that its accused products did not infringe the '966 claims and that all asserted claims were invalid over prior art including Sonos's 2005 system and the 2005 Sonos forum posts. The court granted Google summary judgment of no willful or indirect infringement of the '885 patent, but it denied or deferred Google's other motions. Appx18-50. The case thus proceeded to trial on both patents.

## **2. The revelation during trial that Sonos added new matter**

Because the summary-judgment ruling had rejected Google's written-description and addition-of-new-matter arguments as a matter of law, Google could not try those issues to the jury. Instead, it presented evidence that its original design did not infringe the '966 patent, that its redesign did not infringe either patent, and that all asserted claims were invalid over prior art even assuming Sonos's asserted priority date. The jury found no infringement of the '966 patent but that Google's redesign infringed the '885 patent and that Google had not proven any claims obvious. Appx10347-50. The jury awarded \$32.5 million in damages even though the court

had stricken the trial testimony of Sonos's damages expert and even that expert had estimated only \$12.2 million in damages for the '885 patent. Appx11019-36.

But another issue arose outside the jury's presence. After Lambourne's testimony, the court expressed concern that its summary judgment on the written-description and priority-date issues may have been mistaken. Appx20656-62. It noted the lengthy chain of prosecution and asked whether the specification had changed. Appx20656-58. Consistent with previous representations, Appx7485; Appx15583-84; Appx20676-77, Sonos assured the court that the specifications were "nearly identical," Appx20656. But the court remained troubled that the written-description support for the key feature, overlapping zone scenes, seemed "thin." Appx20658-61. Sonos said it "would be happy to brief the issue," and the court invited briefs from both sides. Appx20661-62. When Sonos noted that the issue was not being tried, the court responded "Well, I'm bringing it up myself," and Sonos responded, "Fair enough." Appx20661.

Google's brief showed that the sentence referring to Figure 5B did *not* appear in the original non-provisional application filed in September 2007 and was instead added to the specification in August 2019. Appx7617-23. Google explained that although that sentence appeared in Appendix A to Sonos's 2006 provisional, that portion of the appendix disclosed only a handheld-controller-based UI for dynamic, ad-hoc zone groups, and, moreover, the appendix expressly taught *against* using the



handheld controller’s user interface for creating zone scenes. Appx7619-21. Google further showed that Sonos’s amended specification cropped the image in the provisional, altered a sentence that described adding or dropping zones in dynamic, ad-hoc zone groups, and added that sentence to a paragraph of the amended specification that discussed the different concept of creating zone scenes. *Id.*

The next morning, the court revisited the issue, expressed concern that Google’s accused products might be invalidating prior art, and requested more briefing. Appx20949-78; Appx11496-97. The parties responded at length—indeed, Sonos filed a *56-page brief* with *26 appendices*. Appx7943-54 (Google brief); Appx8182-237 (Sonos brief); Appx9214-29 (Google rebuttal). At another mid-trial hearing, the court requested even more briefing, Appx21183-99, which the parties provided, Appx9319-26 (Sonos); Appx9407-15 (Google).

The court ultimately deferred these issues until after trial. It expressed concern that it had been “bamboozled by Sonos” when granting summary judgment because it had not known that Sonos had amended the specification with new matter. Appx21410. Contrary to Sonos’s suggestion (at 20), the court’s concern was not about “amending claims to cover a competitor’s product.” It was that Sonos altered its *specification* “to try to cover what Google had already come out with.” Appx21411-12. Nevertheless, because those issues were not being tried to the jury, the court postponed resolving them until after the verdict. Appx21412-13.

### **3. The post-trial rulings**

After the verdict, the parties debated how to address the remaining issues. Appx10484-503; Appx10505-25; Appx10526-37; Appx10539-50; Appx10932-34; Appx10937-40. They submitted supplemental briefing regarding Sonos's priority date. Appx10942-59; Appx11001-18; Appx11064-68. They extensively briefed Google's affirmative defenses, including prosecution laches and equitable estoppel. Appx11038-68; Appx11136-65; Appx11166-84. And the court held a lengthy hearing that focused on prosecution laches, Sonos's abuse of PTO procedures, Sonos's delay in claiming overlapping zone groups, and Sonos's improper addition of new matter to support the new claims. Appx11409-87.

Fully advised, the court issued a 55-page order vacating its summary judgment of adequate written description and holding the '966 and '885 claims unenforceable for prosecution laches and invalid for anticipation because the addition of new matter in 2019 made accused Google products prior art. Appx51-105.

As to prosecution laches, the court observed that Sonos had not explained why it delayed thirteen years (from 2006 to 2019) to disclose and claim overlapping zone scenes, Appx79-81, and found clear and convincing evidence that Google was prejudiced because it invested in and released allegedly infringing products in 2015, Appx82-84. The court rejected Sonos's broad-brush claim that prosecution laches cannot apply to post-1995 applications, Appx84-86, and it explained why Sonos had

not disclosed the claimed invention in any pre-2019 filings and how Sonos had improperly added new matter in 2019, Appx86-99.

The court further held the asserted claims invalid for anticipation because Google had commercially offered accused products in 2015, and Sonos's effective filing date was in 2019. Appx99 (observing that "[t]hat which infringes if later anticipates if before"). Finally, the court vacated its ruling that '885 claim 1 had adequate written-description support, concluding that the ruling was mistaken and that allowing Sonos to argue in other cases that its written description was adequate would be a miscarriage of justice. Appx99-105.

In light of those rulings, the court deemed Google's remaining affirmative defenses and the parties' other post-trial motions (including JMOL and new-trial motions) moot and did not reach them. Appx105.

## **II. The '615 and '033 transferred-playback patents**

Sonos's '615 and '033 patents issued in 2018 and 2020 and claim priority to a December 30, 2011, application. Appx265-323. Both patents claim ways of transferring playback of a queue of multimedia content from a "control device" (*e.g.*, a phone) to a "playback device" (*e.g.*, a TV or speaker) using a software application. Sonos accused Google Play Music and several YouTube apps of infringement, and Google's invalidity defenses centered on prior Google art, namely the YouTube

Remote (YTR) first released in November 2010 and updated in 2011, and related U.S. Patent No. 9,490,998, filed in March 2011.

The claims of the transferred-playback patents require, among other things, using an interface to select a playback device from among other playback devices connected to the local network. Sonos calls these the “device-picker” limitations.

Limitation 13.4 of ’615 claim 13 recites:

detecting a set of inputs to transfer playback from the control device to a particular playback device, wherein the set of inputs comprises: ... (ii) a selection of the particular playback device from the identified playback devices connected to the local area network[.]

Appx291 (19:61-67). Limitation 1.6 of ’033 claim 1 recites:

while displaying the representation of the one or more playback devices [in a media playback system], receiving user input indicating a selection of at least one given playback device from the one or more playback devices[.]

Appx322 (17:49-52).

The patents differ in how they claim the playback queue. Limitation 13.5(a) of ’615 claim 13 requires causing a “cloud server” to add multimedia content to “a *local* playback queue stored on the ... playback device.” Appx291 (20:7-9) (emphasis added). Limitation 1.4 of ’033 claim 1 requires “a *remote* playback queue provided by a cloud-based computing system associated with a cloud-based media service.” Appx322 (17:39-42) (emphasis added).

**A. The showdown ruling shutting down the '615 patent**

At the showdown, Google moved for summary judgment of non-infringement and invalidity of '615 claim 13. Appx4797-4828. The court granted the motion. Appx1-17 (reported at 618 F. Supp. 3d 888).

The court first held that the accused products did not infringe because they lacked the claimed “local playback queue.” Appx8-11. Sonos has not appealed that ruling.

The court further held claim 13 invalid for obviousness over the prior Google art. Appx11-17. The court declined to consider whether YTR practiced device-picker limitation 13.4 because Google cited source code dated December 1, 2011, and Sonos asserted a priority date of July 15, 2011. Nevertheless, the court held that Google’s '998 patent disclosed that limitation by teaching to use a remote control to “select one or more previously paired controlled devices” and that it was obvious to combine that with the YTR app, which disclosed the other limitations. Appx14-17. Sonos has appealed this ruling, but in IPR2021-01563 the PTAB found numerous '615 claims, including claim 13, unpatentable over prior-art references. The IPR ruling is before this Court in No. 2023-2040.

**B. The summary-judgment ruling invalidating the '033 claims**

Although Sonos withdrew its other '615 claims after the showdown, it continued to pursue the related '033 patent. Google moved for summary judgment that the

eight asserted '033 claims were invalid over prior Google art. Appx6317-39, Appx6568-79. The court granted the motion. Appx18-37.

Although Sonos now argues that the cited art did not disclose device-picker limitation 1.6, Sonos did not contest that issue in its opposition brief. *See* Appx6328, Appx6337-6338 & n.3 (Google moving papers) (arguing that Google's '998 patent and YTR both disclosed the device-picker and observing that YTR was prior art because Sonos no longer claimed an earlier priority date); Appx6417-32 (Sonos's non-response). Sonos belatedly tried to contest the issue in two slides for the summary-judgment hearing, Appx6907-08, but it never raised those arguments at the hearing, Appx6651-707, and the court found no material fact dispute, Appx36.

Sonos did dispute the "remote playback queue" limitation of the '033 patent, Appx6425-29, but the court agreed with Google that YTR's "party mode" disclosed providing a remote, cloud-based playback queue. Although individual devices maintained local copies of that queue, the shared, cloud-based queue "r[an] the show" because only that queue reflected changes made by everyone. Appx29-31.

### SUMMARY OF ARGUMENT

**1. The district court correctly found that Sonos added new matter in 2019 and that accused products anticipated the '966 and '885 claims as a result.**

Although Sonos contemplated overlapping zone scenes in 2005 and described them in internal documents discussing proposed improvements to its UI, Sonos did not disclose or claim them in a patent application until 2019. Sonos's 2006 and 2007

applications attached materially altered versions of the 2005 UI documents that avoided describing Party Mode as an all-zones zone scene and thus did not disclose overlapping zone scenes, even implicitly. The district court correctly rejected Sonos's strained arguments that those applications disclosed overlapping zone scenes. And it correctly found that Sonos did not disclose that feature until 2019, when it added new all-zones language tied to a truncated figure lifted from an early disclosure involving ad-hoc zone-linking and unrelated to zone scenes.

Because Sonos added new matter in 2019, the asserted claims' effective filing date was 2019. And because accused Google products were on sale in 2015, those products anticipated the asserted claims if they infringed as Sonos contends. This Court has long held that claims may be invalidated for anticipation based on the plaintiff's allegation of infringement even when the defendant denies infringement.

Sonos's procedural objections are meritless. Google did not pursue written-description/new-matter-based arguments at trial because the court had granted summary judgment of adequate description. But during trial the court sensed something amiss, exercised its prerogative to reconsider, and properly requested additional briefing. Google could not and did not move for JMOL under Rule 50 because these issues were not tried to the jury. And Sonos had ample opportunity to be heard: it made eight filings totaling over 100 pages of briefing and 1,000 pages of exhibits, and the court heard multiple lengthy oral arguments. The court properly made factual

findings after trial in connection with Google's equitable defenses, and it properly found anticipation because there was no genuine dispute of material fact.

**2. The court did not abuse its discretion in finding prosecution laches.**

Prosecution laches has two elements: unreasonable and unexplained delay by the plaintiff, and prejudice to the defendant. The doctrine is not limited to pre-1995 patents, and it does not require term extension. The correct standard of proof is preponderance of the evidence, but in any event the court did not clearly err in finding that Google proved both elements by clear and convincing evidence. Sonos delayed for thirteen years before disclosing and claiming overlapping zone scenes, and it presented no credible explanation for that delay. Google was prejudiced because it invested in designing, manufacturing, and marketing accused products in the interim. Google did not contend, and the court did not hold, that prosecution laches applies in cases of ordinary, proper use of continuation applications. Google argued, and the court found, that Sonos engaged in prosecution laches because it abused the continuation process at Google's expense. The court correctly recognized that Sonos abused the system and had no right "to punish an innovator and to enrich a pretender by delay and sleight of hand." Appx105.

**3. The court correctly granted summary judgment of invalidity of the '615 and '033 claims.**

This Court need not reach Sonos's argument that Google's prior-art '998 patent did not disclose the device-picker limitations because claim 13 of the '615



patent is or soon will be moot and Sonos did not preserve this argument as to the '033 patent. Sonos is wrong on the merits as well because the '998 patent expressly disclosed a remote controller that could “select one or more previously paired controlled devices” and thus pick among them. Sonos fails in its efforts to muddy clear language.

The district court also correctly held that the party mode of Google’s prior-art YTR included a remote playback queue as claimed in the '033 patent. How that mode operated was undisputed: each user could edit a shared queue stored at a remote server, and any change would propagate to local copies of that remote queue. The remote playback queue thus governed the playback sequence. The '033 claims merely require playback of a remote playback queue provided by a cloud-based computer; they neither forbid making local copies of that queue nor require consulting the remote server before playing every item.

## **ARGUMENT**

### **I. The district court correctly held that the overlapping-zone-scenes claims were anticipated by Google’s accused products because Sonos added new matter in 2019**

Google begins with the new-matter issue because it affects all of Sonos’s arguments regarding the overlapping-zone-scenes claims. The district court correctly found that Sonos did not disclose overlapping zone scenes until it added new matter

to its specification in 2019, and that the '966 and '885 claims were anticipated as a matter of law because Google's allegedly infringing products were on sale by 2015.

**A. Sonos did not disclose overlapping zone scenes in 2006 or 2007**

Although Google bore the ultimate burden of proving anticipation, Sonos bore the burden of coming forward with evidence that it was entitled to priority over Google's accused products—evidence of “not only the existence of [an] earlier application, but why the written description in the earlier application support[ed] the claim[s].” *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008). “The test for sufficiency of support ... is whether the disclosure of the application relied upon ‘reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.’” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991) (citation omitted). Here, Sonos's 2006 and 2007 applications did not demonstrate possession of overlapping zone scenes.

Google acknowledged that Lambourne contemplated overlapping zone scenes in 2005 and described that concept in internal Zone Scene and Alarm Clock UI documents dated December 2005. Those documents implicitly disclosed overlapping zone scenes because they characterized Sonos's existing all-zones Party Mode as a “zone scene,” Appx8146, Appx8153, and discussed additional, user-created zone scenes with fewer than all players, Appx8153-54.

But Sonos's 2006 provisional contained no such disclosure. It attached *materially altered* versions of the Zone Scene and Alarm Clock UI documents. Appx8239-325. Evidently concerned about patentability over its prior-art 2005 product, Sonos scrubbed any mention of Party Mode as a zone scene from the UI descriptions it included with the 2006 provisional. Appx90. In particular, the appendices omitted the statements that (1) the "'Party Mode' that currently ships with the product is one example of a Zone Scene," and (2) "[t]he Zone Scene feature [that] allows the user to arrange the zones into groups using one single command" was "similar to the current Party Mode setting that is available." *Compare* Appx8149 *with* Appx8260, Appx8146 *with* Appx8279-322. Without Party Mode as an all-zones zone scene, the 2006 provisional lacked even implicit disclosure of overlapping zone scenes.

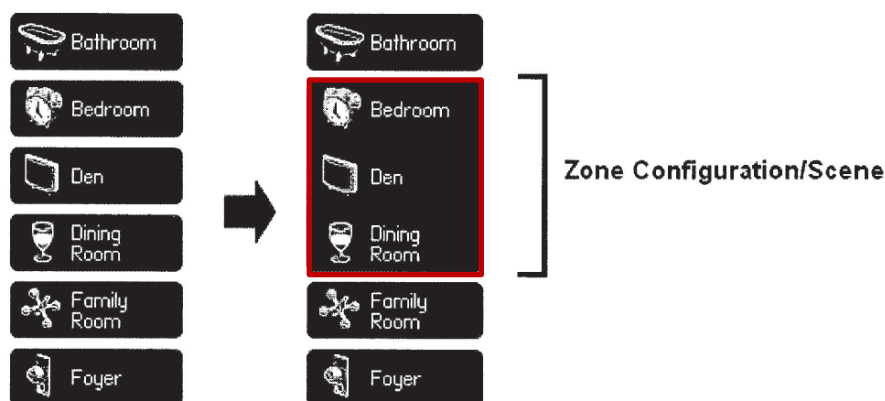
Sonos's 2007 application carried over the provisional's appendices and likewise did not disclose overlapping zone scenes. It described zone scenes generally but nowhere disclosed that the same player could be part of multiple zone scenes. Appx8330-65. In arguing otherwise, Sonos conjures disclosures in the 2007 application that were not there.

Sonos first relies (at 51) on the 2007 application's statement that "[b]ecause the morning group, the evening group, and the weekend group contain the den, it can be difficult for the traditional system to accommodate the requirement of dyna-

mically managing the ad hoc creation and deletion of groups.” Appx8332-33. But that same statement appeared in a 2004 application filed long before Sonos conceived of overlapping zone scenes. *See* U.S. Patent No. 7,571,101 (1:50-2:4). Moreover, this muddled suggestion of a *problem* with dynamic/ad-hoc grouping did not disclose any *solution*, much less the solution of *overlapping zone scenes*. The solution may have been obvious, but “a description that merely renders the invention obvious does not satisfy the [written-description] requirement.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010) (en banc).

Sonos’s reliance (at 51-53) on Figures 3A and 3B is also unavailing. To disclose overlapping zone scenes, those figures would have had to depict two zone scenes in the same system at the same time. But the figures showed *alternative* embodiments, and the specification never described them as concurrent. Appx8345-46.

The specification described Figure 3A as grouping three zone players—Bedroom, Den, and Dining Room—into a “Morning” zone scene:

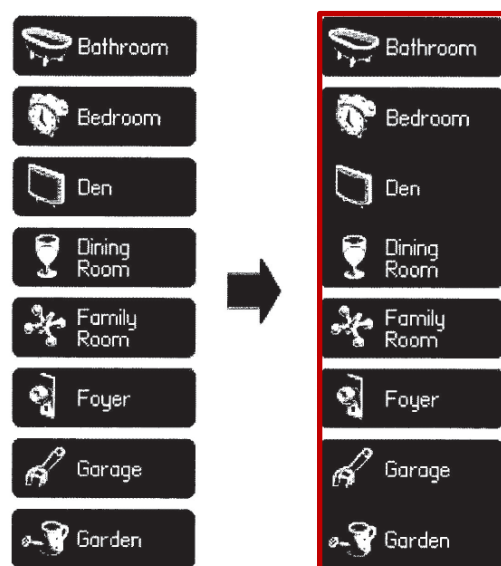


**FIG. 3A**

Appx8359 (red box added); Appx8345. It explained that one action “would link the Bedroom, Den and Dining Room together” into the “Morning” zone scene, eliminating the need for the user to “manually and individually link each zone.” Appx8345. This resulted in one zone scene comprising multiple players. *Id.*

The specification next discussed an “expan[sion]” of this idea: a “Zone Scene can be set to create multiple sets of linked zones.” *Id.* Rather than linking *individual* zone players, users could link *groups* of zone players, forming, for example, Upstairs, Downstairs, and Outside zones. Appx8345-46. But this passage again described creation and invocation of individual zone scenes and never discussed different zone scenes including overlapping players.

Figure 3B depicted a third alternative embodiment. Appx8346. Like the second embodiment, the Figure 3B embodiment created a zone scene from groups of players. But it allowed a zone scene to include multiple ad-hoc player groups:



**FIG. 3B**

Appx8360 (red box added). This again disclosed creating *one* zone scene from *non-overlapping* groups of players. Appx8346. Figure 3B did not depict multiple, overlapping zone scenes. Indeed, the specification taught that any standalone players (e.g., Bathroom, Family Room, and Foyer) “should be *separated* from any group if they were part of a group before the Zone Scene was invoked.” *Id.* (emphasis added).

Sonos’s attempt to merge Figures 3A and 3B and read them as together disclosing coexisting zone scenes with overlapping players fails because the specification taught no such thing. Sonos’s suggestion (at 53) that Figures 3A and 3B were “complementary components of the same Figure 3” is unfounded because the specification treated the approaches as alternative embodiments and never described them as concurrent. Notably, the available zones differed: the Garage and Garden zones of Figure 3B did not appear in Figure 3A, and neither Figure 3A nor Figure 3B showed the Patio discussed in the second, “expanded” embodiment. Appx8345-46; Appx8359-60. Sonos cites its expert’s conclusory assertion at summary judgment that Figures 3A and 3B disclosed overlapping zone scenes, Appx5210 ¶48, but such conclusory, self-serving opinions cannot expand a specification’s actual disclosure. *D Three Enters., LLC v. SunModo Corp.*, 890 F.3d 1042, 1051 (Fed. Cir. 2018). No reasonable factfinder could conclude that Figures 3A and 3B disclosed overlapping zone scenes when the specification said no such thing and instead presented them as alternative approaches.

Sonos's argument regarding Figure 6 (at 53-55) similarly fails. Sonos argues that the specification disclosed overlapping zone scenes because a user could "select any of the players in the system" to add to a group, Appx8334. But that passage was untethered to Figure 6, Appx8348-49, and it said nothing about overlapping zone scenes. The specification's discussion of Figure 6 belies Sonos's argument. Figure 6 "provid[ed] ... a zone scene for a plurality of players, where one or more of the players are placed in a zone." Appx8336. In a household with ten players, for example, the user could follow Figure 6's steps to associate four players with a "Morning" zone scene. Appx8348-49. Figure 6 thus addressed creation and invocation of *one* zone scene—not multiple zone scenes, let alone overlapping zone scenes. Moreover, the specification later explained that one benefit of "the present invention" was to "allow sets of related devices ... to exist as a group without interfering with other components," with "[e]ach of the sets ... configured to a theme or scene." Appx8350. Each zone scene thus was designed not to interfere with other components, including players outside the zone scene. Figure 6 could not have contemplated putting one player into multiple zone scenes, as that would have caused interference.

Sonos also points (at 54-55) to the specification's statement that "various scenes may be saved in any of the members," Appx8334. But that passage discussed where zone scenes could be *saved*, not how they were *composed*. For example, in a system with one zone scene composed of players A and B and another composed of

players C and D, the configuration of each zone scene could be saved at any of the four players. The ability to save zone scenes at any player merely reflected the fact that the players were networked and capable of communicating. *See* Appx8336-38. It did not suggest that zone scenes could *overlap*, which made sense because Sonos's products did not allow overlapping zone scenes until 2020. Appx20915 (915:12-13, 20-22); Appx20916 (916:13-14); Appx20925 (925:3-5).

Sonos notes (at 55) that the court relied on the “various scenes” phrase in its summary-judgment ruling. That is irrelevant for several reasons. First, the court vacated that ruling after learning the full prosecution history. Appx104-05. Second, the summary-judgment ruling relied on the “various scenes” language *together with* the later-added phrase that “[t]he list of zones in the user interface” in Figure 5B “includes ALL the zones in the system, including the zones that are already grouped.” Appx5417. Sonos itself pointed to the all-zones language as “the important part” of the written description, Appx20659-60, and the court never found that the “various scenes” language disclosed overlapping zone scenes by itself. Sonos's expert's conclusory assertion that the “various scenes” language disclosed overlapping zone scenes, Appx5210-11 ¶48, warrants no weight because it was unreasoned and unreasonable.

The specification's disclosure of an optional command that “links all zones in one step,” Appx8346, also did not disclose overlapping zone scenes. Sonos again



assumes that disclosure of various exemplary zone scenes necessarily means that those zone scenes could coexist and overlap. But the specification never described an all-zones scene coexisting with a scene of less than all zones or any other species of overlapping zone scenes.

Sonos's reliance on current Figure 7 is also unavailing. That figure appeared only in the UI description annexed to the 2006 and 2007 applications. Appx8263. Sonos argues that skilled artisans would have understood from the UI description that the inventor contemplated a Party Mode zone scene including all zone players. But Sonos *removed* references to Party Mode as an all-players zone scene from the UI specifications when it filed the 2006 provisional. As a result, nothing in the figure, its description in the annexed UI documents, or even the final, issued patent specification taught that Party Mode included all zone players. *See* Appx8263; Appx376; Appx379 (4:4-5); Appx383 (11:12-14). The 2006 and 2007 applications did not mention Party Mode anywhere outside what became Figure 7. That figure showed a separate Morning zone scene, but neither the figure nor any other part of the 2006 and 2007 application indicated that Morning and Party Mode overlapped. And they did not necessarily overlap because, as inventor Lambourne testified at trial, users could configure Party Mode to exclude certain zones. Appx20458-65.

Sonos cites (at 55-56) Google's expert's testimony regarding *obviousness*, but that proved nothing. Previous testimony had discussed the all-zones Party Mode of

Sonos's 2005 system, *e.g.*, Appx20324, Appx20420, and the inventor had characterized Party Mode as a zone scene, Appx8146, Appx8153. Google's expert opined that overlapping zone scenes was obvious over Sonos's 2005 system and the Sonos forum posts. In the snippet Sonos cites, the expert noted that the Party Mode of Figure 7 could include all zones and a Morning scene could have fewer than all players. Appx21338. But for *written description*, the issue is what Sonos's 2006 and 2007 applications *disclosed*, not what may have been obvious to skilled artisans. As just discussed, those applications said nothing about Party Mode. They certainly did not define Party Mode as an all-zones zone scene, and Sonos *denied* that Party Mode necessarily included all zones, Appx20458-65. Google's agreement that Sonos's *internal, non-public 2005 UI documents* contemplated overlapping zone scenes, Appx10954, was not a concession that Sonos's *2006 and 2007 applications*, which were doctored to *avoid* describing Party Mode as a zone scene, disclosed overlapping zone scenes.

**B. Sonos added overlapping zones scenes in 2019, resulting in a priority date after Google began selling accused products**

Because none of the applications in the priority chain disclosed overlapping zone scenes, Sonos had to add them by amendment. It did not do so until 2019, years after Google began selling accused products.

In August 2019, after yet another rejection over Yamaha DME, Sonos amended its claims to add details about implementing overlapping zone scenes and amend-

ed the written description to say that all zones could be selected for a new zone scene, including ones already grouped:

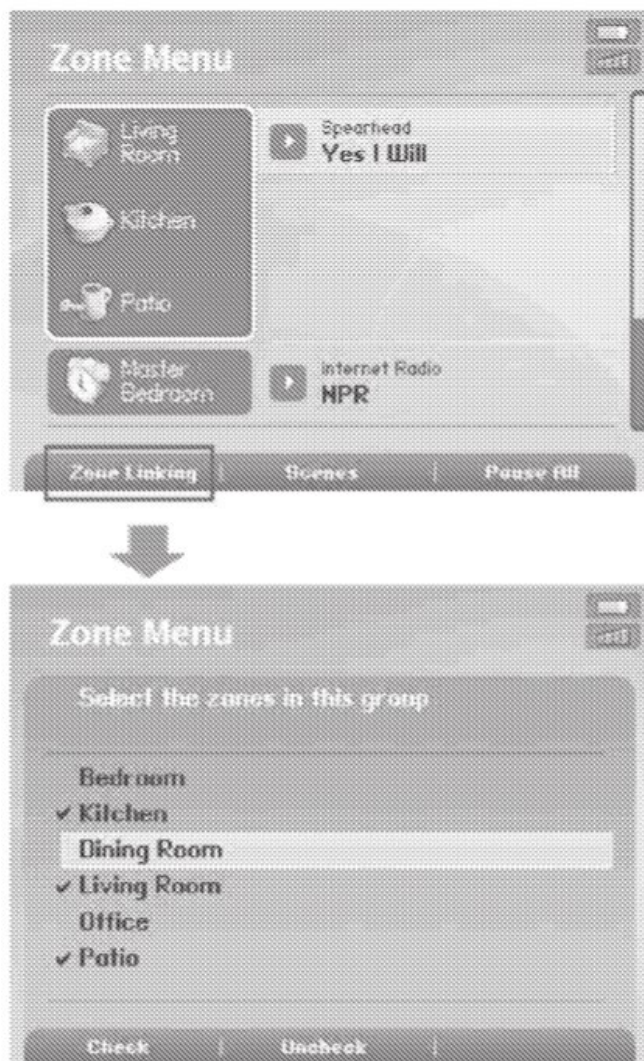
FIG. 5B shows another user interface 520 to allow a user to form a scene. The user interface 520 that may be displayed on a controller or a computing device, lists available zones in a system. The list of zones in the user interface 520 includes ALL the zones in the system, including the zones that are already grouped.

Appx23808. That new all-zones sentence was similar to language from the UI document annexed to the 2006 and 2007 applications, but the language in the 2006 and 2007 applications was in a different context that did *not* demonstrate possession of overlapping zone scenes.

The all-zones sentence in the 2006 provisional appeared in Section 4 of Appendix A. Appx8275. Sections 1–3 described setting up and invoking zone scenes, Appx8260-74, but Section 4 did not address zone scenes at all. It instead described an *alternative* to zone scenes—a modified version of the Sonos 2005 system’s ad-hoc method of linking and dropping zone players. Appx8275.

Section 4 was titled “Alternative Linking Methods,” and the relevant subsection discussed “Multiple Select in Link and Drop Zone panels.” *Id.* The first line of that subsection explained that it was “an adaptation of the Link and Drop Zone feature” in Sonos’s existing product, which “allow[ed] the user to link and drop Zones one at a time.” *Id.* Because that process could be cumbersome, Section 4 described a solution allowing users to add or drop multiple zones at once. It depicted

a menu where a user selected a “Zone Linking” button leading to a screen allowing the user to “Check” or “Uncheck” zones to add or drop from the ad-hoc group:

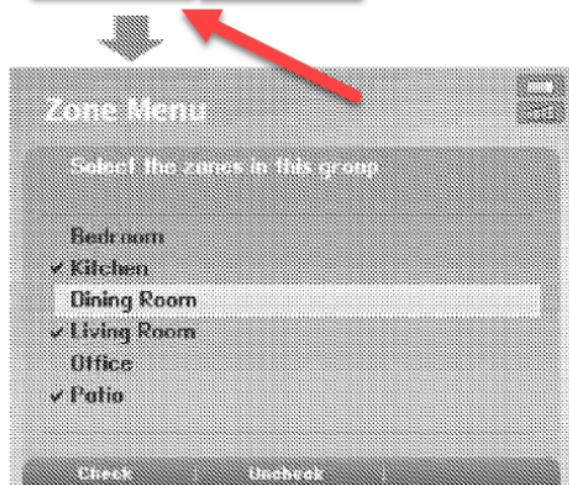
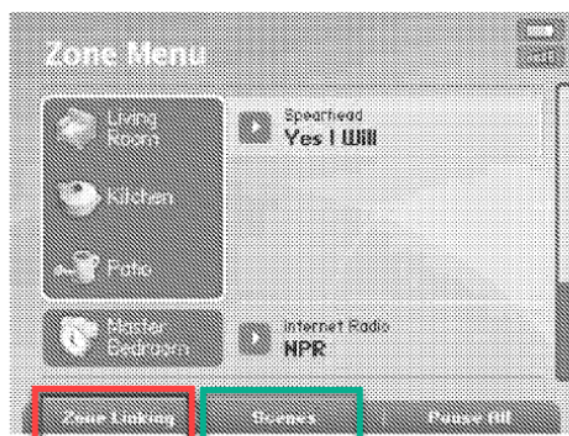


- The list of zones in the screen above includes ALL the zones in the system, including the Zones that are already grouped.

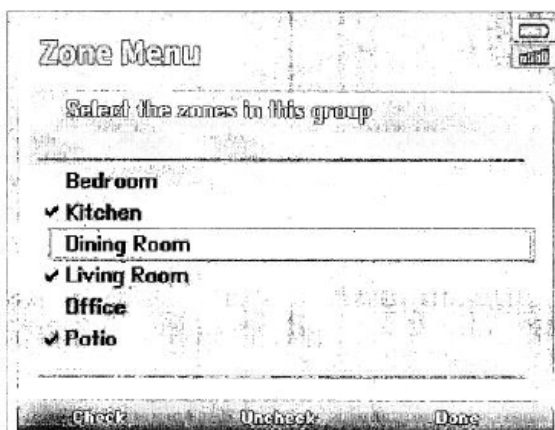
*Id.* The description of the figure explained that “[t]he list of zones in the [Check/Uncheck] screen above includes ALL the zones in the system, including the Zones that are already grouped. *Id.* The all-zones language there thus referred to the list of zones available for ad-hoc linking or dropping of multiple zones in a single group, *not* to

overlapping zone scenes. The first screen (top portion) of the Section 4 image accordingly showed separate buttons for the “Scenes” menu and the “Zone Linking” menu.

When Sonos added all-zones language to the specification in 2019, it completely changed that meaning. In the amended specification, Sonos tied the all-zones sentence to Figure 5B, which was a *truncated* version of the Section 4 image:



**Section 4 image (annotated)**



**Patent Figure 5B**

Appx8275; Appx373. Sonos omitted the top portion of the image, which showed that the “Check/Uncheck” screen of available zones was part of ad-hoc “Zone

Linking” rather than the distinct “Scenes” feature. By adding the all-zones sentence and tying it to the zone scenes of truncated Figure 5B, Sonos newly described overlapping zone scenes rather than the ad-hoc zone linking and dropping originally disclosed. That alteration thus added new matter.

Sonos never pointed out these material changes during prosecution. Sonos tries (at 62) to downplay them as merely replacing the phrase “screen above” from Section 4 with the phrase “user interface 520” in the specification, but that simplification ignores the problem. By removing the top portion of the Section 4 image, Sonos removed critical context for the all-zones sentence. The original Section 4 image made clear that the Check/Uncheck screen was for ad-hoc linking; the altered image did not, and the amended text reinforced the misdirection.

Sonos relies (at 63-64) on the “Zone Scenes” title of the UI document, but that document discussed *both* zone scenes *and* the distinct, improved ad-hoc linking method. Sonos ignores these details in criticizing the district court’s analysis. The court thoroughly explained that both the original UI specification and the altered Appendix A version disclosed zone scenes. Appx59-61, Appx87-89. It also thoroughly explained the document’s *alternative* solution, an improved variation on ad-hoc linking. Appx59, Appx61-63. In finding that “Appendix A and the original zone scene UI document had described ‘Zone Linking’ *as distinct from* ‘Scene Setup,’” the court correctly relied on language from Section 4 itself showing that the

all-zones sentence “explained how this ‘Zone Linking’ feature ‘would allow the user to link and drop multiple zones in one screen’ on an ad hoc basis” by checking and unchecking the zones that would be part of the ad hoc group. Appx98. As the court observed, “Zone scenes were discussed elsewhere” and were “accessed using a distinct soft button.” *Id.* The court also correctly observed that Section 4 showed a handheld controller, whereas Appendix A “*expressly stated* that it was ‘not expected that the Zone Scenes should be set up using the Handheld Controller.’” Appx98; *see also* Appx61 (UI document discussed *setting up* zone scenes using a *desktop* controller and *invoking* them with a *handheld* controller (citing Appx8263, Appx8267)).

Sonos points (at 64-66) to Figure 5B of the 2007 application and its description of “allow[ing] a user to form a scene.” That is a red herring. Figure 5B of the 2007 application, Appx8363, and its textual description, Appx8348, disclosed zone scenes. But Sonos did not disclose *overlapping* zone scenes until it changed the description of Figure 5B by reappropriating the all-zones language and relating it to the cropped figure. The original Section 4 image described ad-hoc linking, not zone scenes. When Sonos included a truncated version of that image as Figure 5B in the 2007 application and added a new description, it changed the meaning of that image to describe zone scenes instead. Sonos *again* changed the meaning of Figure 5B in 2019 by adding the all-zones sentence. In so doing, Sonos manufactured a written description of overlapping zone scenes that was previously absent.

Sonos leans heavily (at 59, 66-67) on the examiner’s failure to issue written-description rejections. But the examiner’s mistake was Sonos’s fault. Sonos overwhelmed him by dumping in over 70,000 pages of largely superfluous documents while requesting prioritized “Track One” examination. *See* Appx73-74, Appx98 n.11. Sonos also falsely asserted that its amendment introduced no new matter. Appx23821. That sleight of hand was not obvious. Unaware of the critical details, the examiner rubber-stamped the amendment. The district court was fully apprised and correctly found that Sonos added new matter.

Sonos cites (at 68) the “especially weighty presumption of correctness” of an examiner’s approval of specification amendments and criticizes the court for not “acknowledg[ing]” that standard. But the presumption is baked into the clear-and-convincing-evidence standard, *see Microsoft Corp. v. i4i Ltd. P’ship*, 564 U.S. 91 (2011), and it is overcome when more careful evaluation of the complete record makes clear that the examiner erred in failing to recognize addition of new matter, *see, e.g., TurboCare Div. of Demag Delaval Turbomachinery Corp. v. Gen. Elec. Co.*, 264 F.3d 1111, 1119-20 (Fed. Cir. 2001); *Augustine Med., Inc. v. Gaymar Indus.*, 181 F.3d 1291, 1302-03 (Fed. Cir. 1999); *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997) (all affirming summary judgment of invalidity); *see also AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1245 (Fed. Cir. 2003) (noting that the presumption of compliance with § 112 “is far from deter-



minative”). The presumption certainly should not apply when, as here, the examiner was misled.

Sonos justifies its actions by claiming (at 67) that it was merely trying to maintain consistent specifications. That is *post-hoc* appellate-attorney argument: Sonos presented no testimony from prosecution or in-house counsel making this excuse. In any event, whether Sonos added new matter in 2019 does not turn on whether Sonos acted in bad faith.

Contrary to Sonos’s suggestion (at 46), there was no contradiction between the district court’s anticipation and prosecution-laches rulings. Sonos’s claims have a 2019 priority date because Sonos added new matter in 2019. Sonos *also* unduly delayed disclosing and claiming overlapping zone scenes because it did not include that concept during thirteen years of patent prosecution. The rulings are consistent because Sonos conceived of overlapping zone scenes by late 2005 but did not disclose or claim them until 2019.

**C. Sonos’s claims are invalid for anticipation because Sonos still asserts that Google’s products infringe**

Sonos concedes (at 31) that its claims are invalid if, as the district court found, it did not disclose overlapping zone scenes until years after Google developed and marketed the accused products. Correctly so, as Sonos continues to assert literal infringement of both patents, and “[t]hat which would literally infringe if later in time anticipates if earlier than the date of invention,” *Ecolab, Inc. v. FMC Corp.*,

569 F.3d 1335, 1348 (Fed. Cir. 2009) (reversing infringement verdict); *accord Peters v. Active Mfg. Co.*, 129 U.S. 530, 537 (1889); *Dow Chem. Co. v. Astro-Valcour, Inc.*, 267 F.3d 1334, 1339-41 (Fed. Cir. 2001).

It does not matter that Google disputes infringement and there is no judgment of infringement. This Court has long held that claims may be invalidated for anticipation based on the plaintiff's *allegation* of infringement, even when the defendant denies infringing. *Vanmoor v. Wal-Mart Stores, Inc.*, 201 F.3d 1363, 1366 (Fed. Cir. 2000); *Evans Cooling Sys. Inc. v. Gen. Motors Corp.*, 125 F.3d 1448, 1451 (Fed. Cir. 1997).

#### **D. Sonos's procedural objections are meritless**

Sonos proffers (at 46-48, 69-71) a bevy of procedural complaints to avoid affirmance. None has merit.

1. Google did not forfeit its written-description- and new-matter-related arguments. In opposition to Sonos's showdown summary-judgment motion, Google expressly contended that there was insufficient written-description support for overlapping zone scenes and that Sonos "inappropriately added new matter ... during the claim amendment process." Appx4913-17. The argument extended for four pages even though Google had to raise all its non-infringement and validity defenses in a single page-limited brief. Unfortunately, the district court was unpersuaded at that time and granted summary judgment to Sonos. Appx5416-17. Because the same

logic applied to all the overlapping-zone-scenes claims, Google could not and did not pursue its written-description/new-matter defenses at trial—its recourse was an appeal after final judgment.

During trial, however, the court grew uncomfortable with its earlier ruling after hearing the inventor testify. District courts have the prerogative to reconsider interlocutory rulings before final judgment. *Marconi Wireless Co. v. United States*, 320 U.S. 1, 47 (1943); *see also* Appx20661 (Sonos’s counsel agreeing it was “[f]air enough” for the court to re-raise these issues). In this case, the court properly requested further briefing, and Google properly took that opportunity to explain Sonos’s prosecution shenanigans. Google made its arguments on paper because the court asked for briefing and told the parties that the “issue will not be submitted to the jury” and would instead be addressed by the court after trial. Appx21412-13. Google did not forfeit its defenses by obeying the court’s order not to try them.<sup>1</sup>

Sonos’s suggestion that Google forfeited its defenses by not raising them in Rule 50 motions during and after trial is nonsensical. Rule 50 motions argue that *evidence presented to a jury* was insufficient to support a finding for the other side.

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<sup>1</sup> Contrary to Sonos’s suggestion (at 47), Google did *not* concede a 2006 priority date. Sonos cites its own briefing at Appx11010-16, and the Google statements cited there simply said *Sonos claimed* priority to 2006 and 2007 applications, making Sonos’s *earliest possible* effective filing date September 12, 2006.

*See* Fed. R. Civ. P. 50(a)(1). Rule 50 is a red herring here because the parties were ordered *not* to present these issues to the jury.

2. Sonos complains that it had no fair opportunity to be heard on these issues. But Sonos made *eight filings* on these issues totaling *over 100 pages of briefing* and *over 1,000 pages of exhibits*. Appx7610-16; Appx8182-9213; Appx9319-406; Appx10505-19; Appx10539-48; Appx10932-34; Appx11001-18; Appx11064-68. The court also entertained three lengthy oral arguments. *E.g.*, Appx20949-78; Appx21183-99; Appx11409-87. Sonos was heard *ad nauseam*.

Sonos grouches that it could not present expert testimony regarding the prosecution history, but it could have offered such evidence with its post-trial briefing on Google's equitable defenses. The reality is that Sonos had nothing more to say because its trial counsel included lawyers from the firm that prosecuted the patents and it had already spun the facts as much as possible.

3. Sonos argues that it was improper for the court to make factual findings. But Sonos's addition of new matter was an important aspect of Google's equitable defenses, and judges necessarily find facts when sitting in equity. Courts also routinely and properly assess facts when making summary-judgment and JMOL rulings. When, as here, there is no *genuine* dispute of *material* fact, courts should grant judgment as a matter of law. Sonos falsely accuses the court of granting a Rule 50 motion that Google did not make. The court resolved Google's equitable defense of

prosecution laches, and it entered judgment of anticipation under pre-AIA § 102(b) because Google undisputedly offered accused products for sale in 2015 and the prosecution history made clear that Sonos added new matter in 2019, making Sonos's effective filing date 2019. Whether Sonos intentionally misled the PTO may be disputed, but that is irrelevant to anticipation because what matters here is *whether* Sonos added new matter, not *why*.

Sonos certainly is not entitled to judgment of *non*-anticipation, as it urges. If this Court concludes that Sonos is entitled to submit even more evidence and argument, the result should be a remand for summary-judgment briefing and a trial if, and only if, the district court identifies genuine disputes of material fact.

## **II. The district court did not abuse its discretion in holding the overlapping-zone-scenes claims unenforceable for prosecution laches**

Sonos's attacks on the prosecution-laches ruling fare no better. Prosecution laches remains a viable defense for post-1995 patents because prejudicial delay can occur even if the resulting patent term is shorter than it would have been under the old seventeen-years-from-issue regime. And affirming the prosecution-laches ruling here will not imperil patents with priority chains created by routine continuation practice. There was nothing routine about Sonos's redaction of critical disclosure from its initial application, Sonos's knowledge of Google's product line and resulting intervening rights, and Sonos's late disclosure to support long-delayed claims to

overlapping zone scenes. The district court acted well within its discretion in finding prosecution laches based on the totality of those circumstances.

**A. Prosecution laches focuses on undue delay in prosecution, not term extension, and it remains a defense for post-1995 patents**

Laches defenses are based on unreasonable delay and prejudice, and the species of prosecution laches developed to address the harm caused by unreasonable delay in securing a patent. In the mid-19th century, the Supreme Court held that an inventor “may forfeit his rights” by “wilful or negligent postponement of his claims.” *Kendall v. Winsor*, 62 U.S. 322, 329 (1858). The Supreme Court later relied on *Kendall*’s concerns with “postponement” when it addressed a nine-year prosecution delay in *Woodbridge v. United States*, 263 U.S. 50, 57 (1923). The Court held that Woodbridge forfeited his patent rights by “designed delay” before his patent issued. *Id.* at 56.

Delay concerns also animated this Court’s reaffirmation of the doctrine in *Symbol Technologies, Inc. v. Lemelson Medical, Education & Research Foundation*, 277 F.3d 1361 (Fed. Cir. 2002) (“*Symbol I*”). The Court confirmed that prosecution laches can bar enforcement of patent claims issued after an unreasonable and unexplained delay in prosecution. *Id.* at 1363-64 (discussing the nine-year delay in *Woodbridge* and the eight-year delay in *Webster Electric Co. v. Splitdorf Electrical Co.*, 264 U.S. 463 (1924)). This Court noted that the Supreme Court confirmed the vitality of a prosecution-delay-based defense even in cases that declined to apply the

defense because the defendant had not been prejudiced. *Id.* at 1364-65 (discussing *Crown Cork & Seal Co. v. Ferdinand Gutmann Co.*, 304 U.S. 159 (1938); *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175 (1938)). And Congress ratified equitable unenforceability defenses when enacting § 282(b)(1) in 1952. *Id.* at 1366.

Prosecution laches protects competitors that make business decisions and investments while a patent's issuance is unreasonably delayed. Like other laches defenses, prosecution laches thus requires proof that the defendant suffered prejudice attributable to the delay. *Cancer Rsch. Tech. Ltd. v. Barr Lab'ys, Inc.*, 625 F.3d 724, 729 (Fed. Cir. 2010). The defendant must establish "that either the accused infringer or others invested in, worked on, or used the claimed technology *during the period of delay.*" *Id.* (emphasis added).

Simply put, prosecution laches requires undue delay and harm caused by the delay. Sonos's suggestion that the defense also requires term extension is unfounded. Mistakenly calling *In re Bogese*, 303 F.3d 1362 (Fed. Cir. 2002), this Court's "first prosecution laches opinion," Sonos describes that decision (at 28) as a rebuke of "a patentee who 'deliberately postponed the free public enjoyment' of the claimed invention." But the quoted language was in the *examiner's rejection*; it was not part of this Court's analysis and holding, which focused on unwarranted *delay*. Without mentioning term postponement or extension, this Court relied on *Symbol I* and held

that “the PTO has authority to order forfeiture of rights for unreasonable *delay*.” 303 F.3d at 1367-69 (emphasis added).

Sonos also errs in contending (at 27) that the Supreme Court in *Webster* “punished” a patentee for undue patent extension. It was the eight-year delay in claiming that concerned the *Webster* Court, not the shorter resulting difference in expiration dates. 264 U.S. at 464-65 (explaining that the original patent issued in November 1916 and the asserted divisional patent issued in September 1918). When *Webster* referred to “an undue extension of the patent monopoly,” it was referring to an enlargement of *scope*, not duration. We know that because *Webster* applied the two-year limit on presenting broadening claims for a reissue patent, where term extension is impossible, to a case involving a divisional application. *See id.* at 466-67 (citing *Wollensak v. Reiher*, 115 U.S. 96 (1885)). The fact that early prosecution-laches precedent evolved from reissue practice, where the original patent is reissued only for its remaining term, confirms that term-extension is not required.

Sonos’s attempt to limit prosecution laches to term-extension cases also makes no policy sense. Prosecution delay can economically benefit a patentee—and prejudice an accused infringer—even if the resulting patent term is shorter than it would have been without the delay. *See* Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. Rev. 63, 85-86 (2004) (reasoning that “a patent applicant who obtains a patent in order to hold-up a mature industry



may not be as concerned about the length of the exclusion right as they are about taking the industry by surprise”).

Moreover, regardless of whether it makes economic sense for a patentee to delay issuance and thereby shorten its patent term, prosecution laches does not require benefit to the patentee—it requires undue delay and resulting harm to the defendant. *See Cancer Rsch.*, 625 F.3d at 731. Even in cases where patentees deliberately extended seventeen-year terms, this Court’s prosecution-laches analysis has focused on the front-end delay and resulting prejudice. *E.g., Personalized Media Commc’ns, LLC v. Apple Inc.*, 57 F.4th 1346, 1355-57 (Fed. Cir. 2023) (“PMC”). To be sure, the strategy motivating a delay is “part of the ‘totality of the circumstances’” to be considered, *id.* at 1356-57, but it is not the defining feature.

Sonos confuses issues in arguing (at 31) that addition of new matter can be policed by other mechanisms. Patents often have multiple invalidity and unenforceability problems, and the availability of one defense does not negate others. *Symbol Technologies, Inc. v. Lemelson Medical, Education & Research Foundation*, 422 F.3d 1378 (Fed. Cir. 2005) (“*Symbol II*”), did not hold or say that addition of new matter must only be addressed through other doctrines. The Court simply observed that adding subject matter “as the development of an invention progresses” may be justifiable and noted that doing so could trigger invalidity over intervening art. *Id.* at 1385. That only confirms that prosecution laches can coexist with other defenses.

Here, Sonos contemplated overlapping zone scenes in 2005, did not include that concept in its 2006 provisional application, and then added new matter and belatedly claimed it thirteen years later in 2019, long after Google brought accused products to market. It is not surprising that Sonos ran afoul of multiple doctrines, and this Court can choose which ground to affirm on.

**B. The correct standard of proof is preponderance of the evidence**

Because the district court found clear and convincing evidence of both unreasonable and inexcusable delay and resulting prejudice to Google, it did not reach the standard of proof. Appx79. Sonos assumes (at 33) that the clear-and-convincing-evidence standard applies, but the correct standard is preponderance of the evidence.

This Court addressed the evidentiary standard “to prove a laches or an equitable estoppel defense” in *A.C. Aukerman Co. v. R.L. Chaides Construction Co.*, 960 F.2d 1020, 1044-45 (Fed. Cir. 1992) (en banc), *overruled in part on other grounds*, *SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC*, 580 U.S. 328 (2017). Reasoning that civil litigants typically must prove facts by a preponderance of evidence and that issues of delay and harm do not implicate the higher clear and convincing standard of proof, *Aukerman* held that “‘preponderance of the evidence’ is the appropriate evidentiary standard to establish the facts relating to the laches issue.” *Id.* at 1045. That reasoning in the context of a delay in bringing suit applies equally to delays in patent prosecution, and although the Supreme Court

in *SCA Hygiene* limited the substantive reach of laches as applied to delays in filing suit, it neither eliminated the equitable defense nor spoke to the standard of proof.

Applying the preponderance standard to prosecution laches is consistent with post-*Aukerman* precedent applying the higher clear-and-convincing-evidence standard to issues like validity and inequitable conduct. The clear-and-convincing-evidence standard for invalidity is based on Congress’s adoption of pre-1952 caselaw that was motivated by the severe consequences of losing a patent entirely. *Microsoft v. i4i*, 564 U.S. at 113-14. Inequitable conduct likewise requires clear and convincing proof because it renders a patent entirely unenforceable. *Star Sci., Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1365-66 (Fed. Cir. 2008); *see also Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011) (en banc) (discussing the “potent remedy” of “unenforceability of the entire patent rather than mere dismissal of the instant suit”). But the remedy for prosecution laches is more limited: the patent is unenforceable only as to parties that were prejudiced. As with other enforcement laches and equitable estoppel, the patentee remains free to enforce the patent against others who were *not* prejudiced. And the preponderance standard applies to such party-specific defenses.

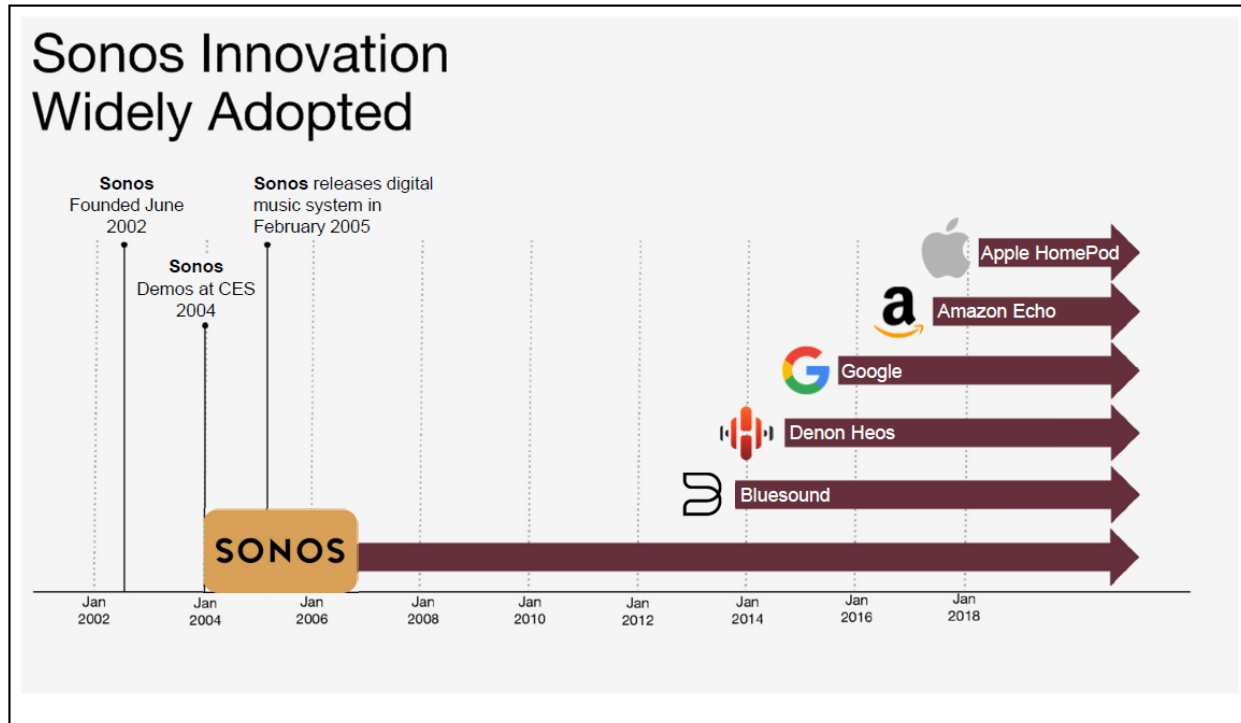
**C. The district court properly found an unreasonable and unexcused thirteen-year delay in prosecuting claims to overlapping zone scenes**

The district court did not clearly err or otherwise abuse its discretion in finding, based on the totality of the circumstances, that Sonos unreasonably and inexcusably delayed by waiting thirteen years to disclose overlapping zone scenes and prosecute claims involving them. Google explained above why the record supported the court's finding that Sonos added new matter in 2019. And the court's other findings regarding unjustified delay were also well-founded.

**1. Sonos unreasonably delayed claiming overlapping zone scenes even after learning about Google's products**

Sonos concedes that it did not present claims to overlapping zone scenes until 2019, thirteen years into prosecution. That magnitude of a delay suffices to trigger prosecution laches. *See, e.g., Woodbridge*, 263 U.S. at 53, 56 (9½-year delay); *Webster*, 264 U.S. at 465 (8-year delay); *Bogese*, 303 F.3d at 1369 (8-year delay); *Hyatt v. Hirshfeld*, 998 F.3d 1347, 1367-68 (Fed. Cir. 2021) (delays of 10 to 19 years in presenting claims-in-suit).

Additional factors exacerbated the delay. Sonos knew by 2014, years before adding the new matter and new claims, that Google was preparing to enter the field. Appx68-71, Appx85; Appx11054-60. Sonos contended that other competitors were too:



Appx10577. Sonos is thus wrong in arguing (at 37) that there was no evidence that its “sequencing decision was at all unreasonable.” As the court found, Appx79, Sonos’s knowledge of Google’s accused products during the years-long delay was evidence of the unreasonableness of that delay.

When Sonos finally claimed overlapping zone scenes in 2019, it rushed to get those claims issued by filing a Track One request for prioritized examination—along with 70,000 pages of documents for the examiner to dig through. Appx73-74, Appx98 n.11. Sonos argues (at 37) that it had “no obligation” to “reveal its prosecution strategies,” but the court properly took into account Sonos’s failure to justify its delay because prosecution laches by definition requires unreasonable *and unexplained* delay. *See, e.g., Symbol I*, 277 F.3d at 1363; *Bogese*, 303 F.3d at 1367. Sonos

tries to justify its massive data-dump by saying (at 40) it was required to produce “litigation filings that post-date the applications.” But even if Sonos discovered some material information during litigation, it was not required to bury that information under cumulative or irrelevant documents like earlier office actions from the same application family and invalidity contentions about an unrelated design patent. *See* Appx23041-43, Appx23052.

Despite claiming a right to silence, Sonos finally offers (at 31) a reason for adding these claims in 2019: the impending release of a new product line including overlapping zone scenes among other new features. But as the court observed, that does not explain why Sonos delayed until 2019 to pursue claims on this feature: “this testimony addressed why Sonos delayed in practicing the invention, not why Sonos delayed in patenting it.” Appx80. Sonos also suggests (at 38-39) that the cost of patent prosecution can justify a delay. Perhaps, but Sonos is well-heeled, has a vast patent portfolio, and can hardly claim that *it* lacked resources to claim overlapping zone scenes until 2019.

Sonos’s argument (at 32) that applicants are entitled to use continuation applications to add claims to cover competitors’ products also misses the mark. For one thing, that proposition assumes the existing specification supports the new claims, which was not the case here. For another, what subject matter an applicant may seek to cover is a separate issue from whether the applicant diligently pursued such claim

scope. Notably, neither of the cases Sonos invokes, *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988), and *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 n.2 (Fed. Cir. 2004), involved allegations of undue delay in prosecution.

## **2. Sonos’s delay in disclosure contributed to the unreasonableness of its behavior**

The district court also relied on Sonos’s machinations in omitting a description of Party Mode as a type of zone scene from its initial patent filing and adding other language years later when it finally claimed overlapping zone scenes. Appx83; Appx88-90. The court properly found that the motivation for Sonos’s original omission was to avoid the risk that its own prior-art system would be invalidating, and it properly rejected as “not credible” the inventor’s testimony that Party Mode was not a zone scene. Appx90-91.

Sonos calls this a “faulty premise” (at 31), but the court’s factual finding was far from clearly erroneous. Recognizing the difficulty of overturning factual findings and credibility determinations, Sonos argues (at 32) that it was for the jury to decide what the prior art disclosed. But prosecution laches is an *equitable* issue for the court, not a jury, to resolve. Moreover, whether Sonos’s eventual claims, which required more than just overlapping zone scenes, were obvious over Sonos’s 2005 system is a different issue from whether Sonos was motivated in 2006 to avoid the

invalidity risk that the 2005 system posed to other claims that did *not* require overlapping zone scenes.

Sonos argues (at 35) that it was “[u]nlike the patentees in *PMC* and *Hyatt*,” and that the PTO did not struggle with its applications. Actually, Sonos’s strategy—including an initial redaction of disclosure, a non-publication request that kept its redacted filing secret for years, an awareness of Google’s product line, and a thirteen-year delay in disclosing and claiming overlapping zone scenes—resembles *PMC*’s strategy of “hiding its technologies, quietly monitoring infringement, and rolling out patents over time.” *PMC*, 57 F.4th at 1352 (cleaned up). Regardless, prosecution laches is not limited to the facts of past scenarios. *See id.* at 1354 (rejecting patentee’s “faulty premise” that offending conduct must look like previous cases). Whether the PTO struggled to process Sonos’s applications is immaterial. There was no struggle in *Bogese*: the offending conduct there involved repeated refilings without amendment and corresponding repeated final rejections. 303 F.3d at 1364-65.

Finally, Sonos faults the court (at 38) for focusing on an “isolated decision on when to claim a particular aspect of the invention.” But prosecution laches is a flexible doctrine that considers the totality of the circumstances and “overall delay in issuing claims”—even when an applicant has complied with PTO requirements. *Symbol II*, 422 F.3d at 1386. Sonos cannot evade prosecution laches by dismissing



years of delay as “one decision.” Moreover, the court considered more than the thirteen-year delay: it also considered Sonos’s knowledge of Google’s product line, its omission of critical disclosure from its provisional application, its deceptive addition of new matter while adding overlapping-zone-scenes claims, and its wholesale dumping of 70,000 pages of “disclosures” while demanding accelerated examination. It was not clear error for the court to find that, taken together, those circumstances demonstrated unreasonable and unjustified delay.

**D. The district court properly found substantial prejudice to Google**

Sonos does not meaningfully challenge the finding of prejudice to Google. As the court observed, Sonos’s own trial theory “was that Google invested in building out a line of products” that supported overlapping zone scenes and “profited” from that investment. Appx82. Because that investment occurred during the period of delay, it established the intervening rights necessary to show prejudice. *See Cancer Rsch.*, 625 F.3d at 729. Moreover, prejudice was presumed from Sonos’s thirteen-year delay. *See Hyatt*, 998 F.3d at 1370 (holding that an unreasonable and unexplained delay of at least six years triggers a presumption of prejudice “including intervening rights”).

Sonos suggests (at 42) that Google was not prejudiced because the products Google began developing in 2014 infringed other patents that Sonos did not assert or dropped. But as the court found, many of Sonos’s unasserted patents covered

“niche variations of little consequence.” Appx72. Sonos now touts its ’228 patent, but to the extent the ’228 claims were broader because they did not require overlapping zone scenes, they had grave invalidity problems—which explains why Sonos never sued Google on that patent. Sonos cannot win this appeal by accusing Google of infringing a patent that Sonos itself concluded was not worth asserting.

Sonos again misapplies precedent (at 43) when it argues that this Court’s discussion of injunction factors in *i4i Limited Partnership v. Microsoft Corp.*, 598 F.3d 831 (Fed. Cir. 2010), precludes a finding of prejudice. *i4i* involved a permanent injunction following an infringement determination and held that the trial court’s balance-of-hardships analysis properly disregarded the defendant’s expenses in developing the infringing products. 598 F.3d at 863. *i4i* did not involve laches or intervening rights, nor did it involve a later-issued patent. Sonos also relies (at 43) on *PMC*, but *PMC*’s strategy was to obtain broad patent protection while delaying prosecution of more focused claims. 57 F.4th at 1351 n.4. Sonos says that is what it was doing, but its behavior was even worse: it delayed prosecuting new claims aimed at a previously undisclosed invention.

Sonos disputes (at 43-44) the district court’s observation that Google should not have been expected to unearth a description of overlapping zone scenes from a family of applications that did not describe any such embodiment. Appx83. Sonos’s argument again relies on the unasserted ’228 patent, which it says claimed “the

invention well before Google invested in its infringing products in 2015.” But as shown above, the 2007 specification underlying the ’228 patent nowhere disclosed overlapping zone scenes. It was not Google’s burden to foresee undisclosed embodiments that Sonos might someday claim.

Finally, Sonos accuses the court (at 44) of positing that anything not claimed in a first application is dedicated to the public. But the court recognized the permissibility of continuation applications in the very next sentence. Appx81. Sonos’s problem is that the right to file continuation applications is not unfettered. When, as here, an applicant unreasonably and unjustifiably delays filing new claims directed to new matter and that delay prejudices an accused infringer, those claims are unenforceable for prosecution laches. And when, as here, an applicant adds new matter to its specification to support newly filed claims, it loses its original priority date and the claims may be invalid over intervening prior art. The court correctly held that both of those problems were fatal to Sonos’s claims on overlapping zone scenes.

### **III. The district court correctly granted summary judgment of invalidity of the transferred-playback claims over prior Google art**

Sonos also fails in its attacks on the summary judgments that the ’615 and ’033 transferred-playback claims are invalid over prior Google art.

#### **A. Even if the device-picker issue is still live, Google’s prior-art ’998 patent disclosed that limitation**

Sonos argues (at 72-76) that there was a genuine dispute over whether prior

art disclosed the device-picker limitations (limitation 13.4 of the '615 patent and limitation 1.6 of the '033 patent). But this Court need not reach this issue.

The '615 patent is or soon will be moot because Sonos has not appealed the summary judgment of non-infringement of claim 13, Sonos withdrew all other claims involving that patent from this case, and the claims that were asserted will be canceled if this Court affirms the PTAB's unpatentability rulings in No. 2023-2040.

As to the '033 patent, Sonos forfeited any argument that the prior art did not disclose the device picker claimed there. Google's summary-judgment motion regarding that patent explained why limitation 1.6 was obvious over the cited art. Appx6337-38. Sonos ignored that limitation both in its opposition brief, Appx6423-32, and at the hearing, Appx6651-707. Sonos disclosed two demonstrative slides mentioning the device picker, Appx6907-08, but it never discussed them at the hearing—even after Google noted the prior art's disclosure of a device picker, Appx6702-04. Moreover, even those slides did not dispute that the cited art disclosed a device picker; Sonos merely said there “would be no need” to use such a device picker with YTR's party mode “when the desire is to have multiple [screens] for playback.” Appx6908. The district court rejected *that* argument, Appx36, Sonos does not pursue it here, and Sonos's new arguments on appeal should be disregarded.

Sonos is wrong on the merits anyway. The device-picker limitations require receiving an input indicating “selection” of a playback device from a group of

available playback devices. Appx291 (19:65-67); Appx322 (17:50-52). Google’s prior-art ’998 patent expressly disclosed that the remote-control application could be used to “select one or more previously paired controlled devices”:

[T]he user may also utilize the remote control application of remote control 75 to *select one or more previously paired* controlled devices.

Appx34478-79 (10:67-11:3) (emphasis added). That disclosure fully aligned with Sonos’s device-picker limitations because the prior-art remote control allowed users to “select” a controlled device or devices, and “selecting” means choosing or picking among alternatives. The district court correctly recognized there was no genuine dispute that the ’998 patent disclosed a device picker, Appx16, and Sonos no longer disputes that skilled artisans would have combined those teachings with YTR’s.

Sonos also protests that the ’998 patent’s disclosure was ambiguous, claiming (at 74) that the cited passage may have taught “the ability to control any and all” previously controlled devices rather than “selection of a particular paired device from among multiple devices.”<sup>2</sup> Sonos points (at 74-75) to initial comments the court made at the hearing, but those comments addressed the ’998 patent’s discussion of “send[ing] control messages to one or more paired control devices.” Appx5317-20.

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<sup>2</sup> Sonos’s framing ignores that only ’615 claim 13 recites selecting a “particular” playback device. The ’033 claims recite selecting “at least one” playback device from “one or more” playback devices, thus covering selecting multiple or even all available playback devices. Appx322-23 (17:51-52, 19:35-38).

Once Google’s counsel pointed out the previous disclosure of affirmatively “selecting” one or more previously paired devices, Appx5320-21, the court recognized that there was no genuine ambiguity, Appx16.

Sonos next contends (at 74-75) that evidence from “dueling experts” with “conflicting opinions” precluded summary judgment. But parties cannot defeat summary judgment “simply by submitting an expert declaration asserting that something is black when the moving party’s expert says it is white.” *Invitrogen Corp. v. Clontech Lab’ys, Inc.*, 429 F.3d 1052, 1080 (Fed. Cir. 2005). Sonos barely discusses its expert’s testimony—for good reason. Most of what Sonos cites addressed whether the ’998 patent described *identifying* playback devices or *transferring* playback—limitations it no longer disputes—rather than *selecting* a playback device. Appx5149-51 ¶¶ 171-172, 174-175. On *selecting*, Sonos’s expert merely said the ’998 patent’s disclosure was “not clear to [him]” and then speculated about what it “may be referring to.” Appx5150 ¶ 173. Neither speculation nor conclusory expert assertions can prevent summary judgment. *Invitrogen*, 429 F.3d at 1080; *Regents of Univ. of Minn. v. AGA Med. Corp.*, 717 F.3d 929, 941 (Fed. Cir. 2013).

Sonos also briefly refers to two supposed concessions, but both are meaningless. The fact that a named inventor who was deposed only as a *fact* witness declined to offer *opinion* testimony about an excerpt from the ’998 specification is both unremarkable and irrelevant. *See* Appx5190; Appx11493-95. What matters is whether

the document itself disclosed using the remote application to select one or more controlled devices, and it did so expressly. Sonos also asserts (at 75) that Google conceded that the '998 patent did not “mention any embodiments where the user selects or plays to only one device from a set of multiple paired devices.” But Google’s counsel merely said that the '998 patent did not specifically discuss one particular hypothetical arrangement posited by the court. Appx5319. And the clear, express disclosure of device-picker functionality cannot be disregarded simply because the patent did not additionally discuss details of a particular embodiment.

At bottom, Sonos argues (at 75) that the court erred by adopting the “most straightforward” of two possible conclusions. In actuality, the court arrived at the *only* reasonable reading of the '998 patent: it expressly disclosed use of the remote application to “select” one or more controlled devices. The court recognized Sonos’s contrary position for what it was: a “contorted” effort to inject ambiguity where none existed. Appx16. Sonos’s insistence that the prior art’s disclosure of using a control device to “select” one or more playback devices did not teach “selection” was incredible.<sup>3</sup>

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<sup>3</sup> Even if this Court concludes that the '998 patent was ambiguous, it should vacate rather than reverse the summary judgment because Google cited additional references that disclosed device pickers. *See* Appx4882-83 (citing Project Tungsten, Apple Airplay, and Al-Shayk).

**B. Prior Google art disclosed a remote playback queue**

Finally, in an argument limited to the '033 patent, Sonos disputes (at 76-80) that YTR's "party mode" included a "remote playback queue provided by a cloud-based computing system," as recited in limitation 1.4. Sonos argues that YTR devices in party mode maintained local copies of a server-based playback queue and could play videos from those local copies even if the server connection were interrupted. According to Sonos, that created a factual dispute about whether playback in YTR's party mode used the remote, server-based queue.

But the material facts were undisputed. Everyone agreed about how YTR's party mode worked: each user at the "party" could edit a shared queue stored at a remote server, and any change would propagate to local copies of that remote queue stored on each user device. Appx6463-67; Appx6253-57. The shared party queue stored at the remote server thus governed the playback sequence.

Contrary to Sonos's suggestion, nothing in the '033 claims excludes local copies of the remote playback queue. Claim 1 recites playback of a "remote playback queue *provided by* a cloud-based computing system." Appx322 (17:40-42). Each party mode user's local copy of the "remote playback queue" downloaded from a server in the YTR system was indisputably a "remote playback queue" "provided by" a cloud-based computing system. Sonos's own expert said so when addressing infringement of the same claims. Appx6281 ("[J]ust because a sender device might



*maintain* a local copy of a queue does not necessarily mean that there is not also ‘a remote playback queue *provided by* a cloud-based computing system associated with a cloud-based media service.’”). What’s good for infringement is good for anticipation. The court was thus correct in finding that YTR satisfied this limitation. Appx30-31.

Sonos overlooks the claim language in assuming that each user device must continually access the remote server. Claim 1 calls for the playback device to communicate with the cloud-based device “to obtain data identifying a next *one or more* media items that are in the remote playback queue” and then use that data to retrieve and play “*at least one* media item in the remote playback queue.” Appx322 (17:57-65) (emphasis added); *see also* Appx323 (19:43-50) (claim 12). That language is broad and expressly covers downloading information identifying multiple items in the remote playback queue and then playing those items. It does not forbid local copies or require consulting the remote server before playing each media item even when the remote server is temporarily unavailable.

Sonos suggests (at 79) an inconsistency with the court’s invalidation of claim 13 of the ’615 patent, which recites a “local playback queue” on the playback device, *see* Appx291 (limitation 13.5). But the court never concluded that remote and locally maintained playback queues were mutually exclusive. It simply found that YTR’s *non-party* mode used a *local* playback queue—which Sonos did not dispute. *See*

Appx13-14; Appx5084; Appx21 (“[T]he prior order found the YouTube Remote application employed a local playback queue because it found the YouTube Remote application disclosed limitation 13.5.”). That finding was consistent with the court’s separate finding that YTR’s *party* mode used the shared *remote* playback queue.

The ’033 invalidity ruling was also fully consistent with the unappealed ruling that Google did not infringe claim 13 of the ’615 patent. The accused products did not infringe because they lacked the claimed local playback queue: the cloud-based queue “r[an] the show.” Appx9-11. Here, the ’033 claims require a remote playback queue, and the court correctly invalidated them because in the prior-art YTR party mode the remote server queue likewise “ran the show.” Appx29-32.

### **CONCLUSION**

The judgment should be affirmed in full.

Respectfully submitted,

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I certify that I have the authority of my co-counsel Sean S. Pak to file this brief with his electronic signature.

Dated: May 24, 2024

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**CERTIFICATE OF COMPLIANCE WITH TYPE–VOLUME LIMITATION**

1. This brief complies with the type–volume limitation of Federal Circuit Rule 32(b). The brief contains 13,984 words, excluding the portions exempted by Federal Rule of Appellate Procedure 32(f) and Federal Circuit Rule 32(b)(2).

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